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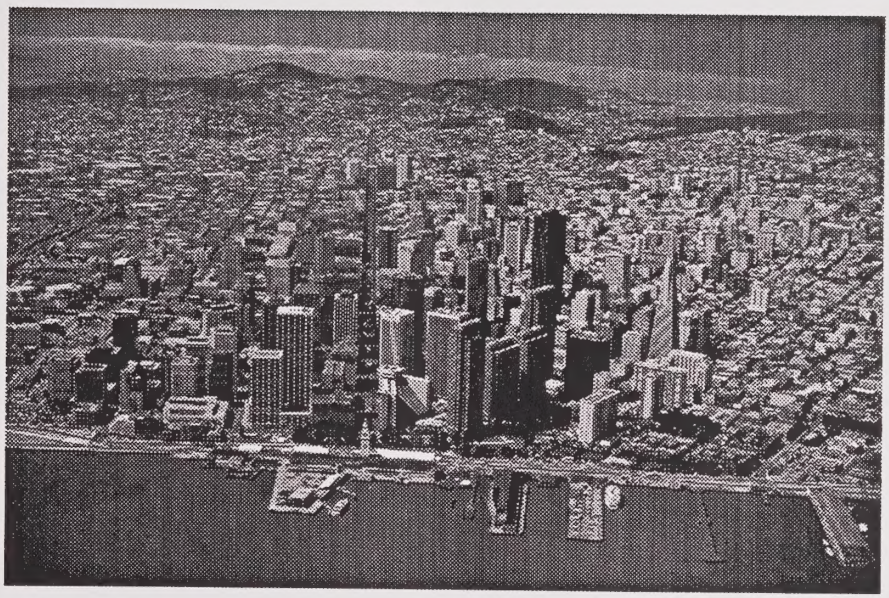

M.H. deYoung Memorial Museum
Site Selection Study

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Prepared for The Fine Arts Museums of San Francisco
by Sedway Consulting, ROMA Design Group and Associated Consultants
June 1997

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Site Selection Study

Prepared for
The Fine Arts Museums of San Francisco

by
Sedway Consulting

in association with
ROMA Design Group, Rutherford & Chekene
Sedway Group, Swinerton & Walberg, Wilber Smith Associates

June 1997

ERRATA SHEET

Page 2, Paragraph 2, the first sentence should read as follows:
The final set of *45* evaluative criteria (and 147 constituent measures) were then used independently by the team of technical consultants, including professional planners, urban designers, structural and soils engineers, civil engineers, transportation and traffic engineers, and real estate economists.

Page 2, Paragraph 2, the final sentence should read as follows:
The technical findings on the sites are presented in technical reports, included *with* this report as appendices.

Page 7, Paragraph 1 should read as follows:
The second step was to review these resulting districts and their 11 separate areas, and by applying other area-type suitability criteria, *screen them* down to six finalist areas.

Page 8, Paragraph 5 should read as follows:
The Port also has been *willing* to consider the museum on other of its piers, but given the prior results of structural analysis of Piers 27 and 29, it was determined that no pier can meet the very high standard of art asset protection the museum requires. Moreover, the *Ferry Building* RFP has not yet been formulated nor its scope determined.

Page 17, Paragraph 2 should read as follows:
Open space is limited, although Justin Herman Plaza provides nearby pedestrian-oriented hard space, and Walton Square Park, *one* block to the northwest, provides a full one-block landscaped green space with lunchtime-oriented retail uses.

Page 21, Paragraph 2 should read as follows:
The process went further in technical terms by listing *147* measures (of a numerical and/or statistical nature), here termed factors, which could be used to gain an even clearer insight into the qualities and characteristics of each site.

Page 23, **Criterion 2.3 should read as follows:
Assure that Museum is Located Within Walking Distance of Transit Stop or Station Which, with Public Transit, Can Accommodate the Vehicles of a Substantially Increased Number of Museum Visitors.

Factor: *See Criterion 2.1 above.*

*Criteria 2.3 and 2.4 should now be **Criteria 2.4 and 2.5, respectively.*

Page 42, Paragraph 1 should read as follows:
Although its plans for the area remain indefinite, it has traditionally viewed this area as a major *revenue* opportunity on the landward side of Embarcadero.

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I. EXECUTIVE SUMMARY

The de Young Museum and Golden Gate Park have long been associated. The nature of their origins and joinder perhaps foretold the problems they might face in the future, and which have given rise to this study.

In 1894, a world's fair was opened in San Francisco on a "temporary" site. This was considered acceptable for a short period in a then desolate portion of the relatively young Golden Gate Park. The fair's enormous popularity, however, led to the later conversion of one of its buildings, which had hosted almost two million visitors during the world's fair, into a fine arts museum — the de Young Museum.

After a century of peaceful coexistence, as the park and museum matured and as the population of the city increased and recreational pursuits expanded, serious conflicts began to emerge. Recently, those conflicts culminated in the characterization of the museum as non-recreational by city staff, perhaps reflective of a future vision of the park devoid of urban elements. This undermined the museum's status as a park feature.

The pressures on the museum are not simply recreational and institutional. The museum, although surviving the 1906 Earthquake, did not fare well in the 1989 Loma Prieta Earthquake. The Trustees decided that a new museum building outweighed other options, and commissioned a study of alternative sites, along with the current site. After that report was submitted, the Trustees decided to try to remain in the park, but with an added underground garage. The required bond issue failed to receive the requisite two-thirds vote, and a restudy, which this report conveys, was initiated in late 1996.

The restudy capitalized on the earlier site screening by using the prior narrowing to six finalist city districts, and then to six finalist sub-district areas which included 34 candidate sites. These were reviewed and updated and seven sites were identified as the finalist group. This now included two existing buildings, the Ferry Building and the old Federal Building. The seven sites were further evaluated for their availability within the time frame posited for action; this eliminated both of these existing buildings as well as Letterman Hospital.

This left four sites for further evaluation: the existing de Young Museum site, Transbay District sites, Mid-Embarcadero Blocks 202 and 203, and a site at the junction of Broadway and the Embarcadero. Two Transbay District sites were selected from several options in a special study based on the Transbay District Concept Plan, and one of these, the site of the Transbay Terminal itself, was eventually selected as the Transbay District site for further study. A prototype site development plan for each of the four sites is shown on pages following discussions of the sites.

The site selection process utilized a comprehensive set of evaluative criteria. The initial basis for these were the six goals and constituent objectives for the new museum adopted in 1996 by the Trustees. These focused largely on needs from a museum perspective, and were later supplemented by

two goals directed predominantly at public and city needs proposed by participants in a series of public forums, and by one goal included by the consultants involving feasibility. In addition, a series of basic assumptions were utilized, including a set of requirements and a development program previously adopted.

The final set of four evaluative criteria (and 147 constituent measures) were then used independently by the team of technical consultants, including professional planners, urban designers, structural and soils engineers, civil engineers, transportation and traffic engineers, and real estate economists. The four finalist sites were studied both "in the field" and using secondary sources and interviews. The technical findings on the sites are presented in technical reports, included in this report as appendices.

The criteria were weighted by four levels of importance: critical, highly significant, significant, and moderately important. The separate judgments made in the technical reports are incorporated herein via a series of succinct verbal assessments, prepared by the technical consultants and compiled in chart form. These were also converted by them into specific ratings of each site for each criterion — a total of 180 judgments. These indicated whether a site was very high, high, average, low, or very low in meeting the criterion.

The composite statistical results are included in the conclusions and recommendations section of the report. No single site is ideal from all standpoints. However, based on the weightings and ratings for the criteria, the overall rank order of desirability of the four sites is as follows:

#1 — Mid-Embarcadero

#2 — Broadway/Embarcadero

#3 — Transbay District

#4 — Golden Gate Park

The Mid-Embarcadero site ranked substantially higher than the other sites, while the Golden Gate Park site ranked substantially lower.

The Golden Gate Park site, a natural, remote setting, scored notably lower overall in public security, public accessibility, transit access, parking access, environs conflicts, visitorship, revenues, compatibility, public plan and program consistency, stimulation of the public economy, approval obstacles, relocation cost, financial support, and future expansion. It ranked highest overall in operations because it is closest to the Palace of the Legion of Honor. (However, when viewed from the perspective of FAMSF museum distribution and visitorship, this is a drawback.) It also ranked best in ventilation cost (the air is naturally fresher due to prevailing winds), adjacent open space, and ease of construction.

The Transbay Terminal site ranked third overall, scoring approximately 10 percent lower than the highest rated site. The area now functions as a major transportation entry into the city. As the newest urban frontier of the city it is malleable, embryonic, diverse, diffuse, and somewhat undefined. Its locational conflict with the proposed CalTrain underground station, no matter how that matter is resolved, remains a notable negative. It scored lowest overall on site/traffic loading; operations; identity/image; environmental amenity; and project processing. It ranked highest overall in transit access, parking access, consistency with

city programs (Transbay District renewal), and expansion potential.

The Broadway/Embarcadero site ranked second overall but very close in ranking to the Transbay Terminal. It is in a largely low-scale, predominantly open waterfront-oriented site, which, however, is poorly identifiable and only moderately accessible. It scored lowest overall in lack of synergy with environs uses, and acquisition costs. It scored highest overall in ambient light, consistency with public plans, and compatibility with surroundings.

The highest ranked site among all sites, by a nine percent margin, is the Mid-Embarcadero Blocks 202 and 203 site. This site may be seen as being at or near the heart of the city, with growing public access due to new transit lines and ferry services, along with BART and Muni Metro. It ranked highest overall in public security, emergency services, public economic enhancement, project processing, and financial support. It shared the highest ranking with one or more of the other sites on 19 other criteria, including land acquisition cost (none, shared with the park site). It has the lowest overall ranking in only one criterion — ambient light.

Museum leaders, confronted with new and challenging demands, are often enjoined figuratively to "think outside the box", i.e., avoid conventional responses. In the case of the de Young Museum this takes on special significance. Its leaders and officials must not only think literally outside the structural box of an obsolete building, which they already have done, but also outside the geographic box of their long-time home, Golden Gate Park. It is strongly recommended they now do that also. Once done and a sound decision made, the Fine Arts Museums will be able to move the de Young Museum to a logical location and thereby move it boldly into the new millennium.

II. BACKGROUND AND PURPOSE

The de Young Museum and Golden Gate Park have been associated for more than a century. Their genesis perhaps suggested their ultimate destiny.

During the late nineteenth century, the concept of a public park had broad appeal in a democratic society. Frederick Law Olmsted, the planner of Central Park in New York, proposed a public park in San Francisco. The state legislature adopted a law in 1870 to create that park, which was designed by Olmsted. A few decades later, the World's Columbian Exposition opened in Chicago in 1893. It was extraordinarily popular. Because of its success, the San Francisco Park Commission decided to depart from the exclusive park use to host the California Midwinter International Exposition in what was then an undeveloped area east of Stow Lake. The campaign was spearheaded by Michael de Young and James Phelan. The fair opened in January 1894 and closed six months later. The physical legacy of the fair included the Japanese Tea Garden, the Music Concourse and, most significantly, the de Young Museum, which had been built in an Egyptian-style structure as the fair's Fine Arts Building.

Since its opening, the de Young Museum has been an important part of the San Francisco cultural, historical, and physical landscape. And at its inception and for many years, the museum and the expanding park were largely compatible. Over the past decades, however, as demand both for park and museum use increased, there has been growing friction between them because of their intrinsically differing missions in terms of urban "connectedness." The park has sought to remain an "oasis from urban pressures through passive and active recreation. The museum has sought exposure and full access. As the patronage and adequacy of public transit declined, and as the museum mounted exhibits which had fluctuating high visitorship superimposed on increasing visitorship on weekends, great pressure was placed on a meager parking supply. Peak use by museum visitors on weekends coincided with peak use by recreational visitors, but the peaks had gotten higher.

After the 1989 Loma Prieta Earthquake, the City and County of San Francisco produced a 1991 assessment of the museum as having the city's highest seismic risk and being susceptible to collapse in the event of another earthquake. The significant seismic problems, the high level of visitorship, and the value of the objects in the museum caused the city to propose moving ahead with a plan to renovate the museum. The trustees also undertook a temporary interim bracing project to reduce the risk of collapse.

The museum evaluated several options, including a seismic renovation and code upgrade, a seismic renovation with partial reconstruction, and an entirely new facility. The trustees determined that a new facility would be most cost-effective and allow it to meet future demand. The new museum concept would include shifting the museum slightly to the east and would include direct access to an underground parking garage from outside the park. Given the opposition to this, the trustees determined that other sites should be studied.

This resulted in a site selection report in January 1996, and a decision by the Trustees to remain in the park and place a general obligation bond issue on the ballot in November 1996. That measure was defeated.

The conflicts were dramatized in an official form recently when the environmental impact report on the Golden Gate Park Draft Master Plan was released. That assessment characterized the museum as a non-recreational land use in the park, excluded the museum as well as the Academy of Sciences from study, and included as one of the analyzed alternatives a scenario with permanent closure of John F. Kennedy Drive, extending the current Sunday and holiday closures to every day of the week. Significantly, there was no assessment of the impacts on the museum of such road changes and closures.

In light of the defeat of the November 1996 bond measure and a growing awareness of incompatibility and conflict, the museum commissioned an updated site selection study. The results of that study are included in this document. The study team was led by Paul Sedway of Sedway Consulting, Urban Planners, with technical input from: ROMA Design Group, Urban Designers; Rutherford & Chekene, Civil and Structural Engineers; Sedway Group, Real Estate and Urban Land Economists; Swinerton & Walberg, Construction Specialists and Cost Estimators; and Wilbur Smith Associates, Transportation Planners and Traffic Engineers.

III. THE SITE SELECTION PROCESS

Study Chronology

This report documents the results of the New de Young Museum Site Selection Restudy. The term "restudy is used to distinguish it from the prior site selection study conducted from July 1995 to January 1996. That initial study was designed to ensure that no suitable site in the city would be overlooked. Obviously, to undertake a detailed review of each of the hundreds of possible sites and buildings in the city was infeasible. Hence, at the outset of the initial study, it was decided that a four-step screening sequence would be followed. The first step involved the initial identification of the 18 official districts comprising the city and the application of district suitability (broad city planning-type) criteria to these, resulting in six finalist districts. The second step was to review these resulting districts and their 11 separate areas, and by applying other area-type suitability criteria, which screened down to six finalist areas. The third step was to take these six areas — now constituting a manageable acreage, and identify 34 candidate sites; these were subjected to site-scale criteria and a fatal flaw exclusion process, resulting in eight finalist sites. The fourth and last step was to subject these eight sites, which the Board of Trustees subsequently reduced to five by eliminating existing buildings, to a detailed technical analysis.

To build upon the early 1995-1996 screening during this 1997 restudy, the consultants started at the prior Step 3, that is, to once again review the six finalist areas with new insights and with the "ripening" and "withering" of some of the original 34 sites, and with some new sites added. At the same time, the Trustees modified one of the key assumptions by removing their prior rejection of existing buildings. This led to a list of seven sites or buildings determined to be preliminary feasible. These seven sites or site groups were as follows:

- the existing de Young Museum site in Golden Gate Park,
- the Letterman Hospital site in the Presidio.
- the old Federal Building in the Civic Center,
- the Transbay District sites,
- the Ferry Building,
- the Mid-Embarcadero Blocks 202 and 203, and
- the site at the terminus of Broadway at the Embarcadero.

These sites provided a broad range of choice from the standpoints of geography, setting, vacant land versus existing buildings, and agency jurisdiction.

Screening for Availability

Because of the increasingly urgent need for a new de Young Museum, a new and overriding non-locational, non-physical criterion was used, which can be termed the fourth dimension of timing. It was deemed highly desirable for the Trustees to make a final decision during the

spring or summer of 1997, because if another vote were essential considerable work would be needed by the targeted November 1998 ballot. To postpone action beyond this point and not be on the next general election ballot, would mean that fewer voters would express their views, momentum would be lost, and public interest would wane. Of course, there also could be further decline in structural stability of the existing building and its ability to withstand another seismic event, as well as decreasing attendance. To avoid this spiral of decline, a timely decision was needed.

Clearly, from the standpoint of assuring guaranteed availability, no site in San Francisco can ever be considered totally secure. However, there is a range of tolerable risk. Based on that consideration, three of the seven sites were considered to have too high a risk, with either no, or very limited, likelihood of site availability within the time-frame. These three were the Letterman Hospital Site at the Presidio; the Old Federal Building in the Civic Center; and the Ferry Building. Coincidentally, these included the only two sites with existing buildings proposed for consideration of occupancy: the old Federal Building and the Ferry Building.

The Presidio Trust Board, which will formulate policy regarding land leases, was to have been appointed within 90 days of enactment of the original legislation. However, its appointment was delayed for about six months. It is likely to be many more months before land policy is fully established. A plan by the Presidio Trust is not required until one year from the date of its first meeting, although the board might act before that time. No formal meeting has yet been held as of this writing.

The Old Federal Building has not yet been declared surplus. A study was completed and sent to the General Services Administration (GSA) in Washington, documenting the high level of restoration required. If the GSA were to declare the building surplus, which is likely, it would first be offered to other federal agencies, then after a period of time to homeless providers, which, once certified, can make application for the site. Schools and museums can make application through the Department of Education, and the city, once an appraisal is made, also can indicate its interest in purchasing the building at the minimum cost appraisal. All this suggests it could take from nine months to a year before the entire disposition process is completed after a declaration of surplus. The museum might then get the building only on an as-is basis, unless federal legislation were passed to fund the expensive seismic renovation and historic restoration of the building.

The Ferry Building is under the jurisdiction of the San Francisco Port Authority. That authority has decided to issue a request for proposals for use of the building. The Port also has been seeking willing to consider the museum on other of its piers, but given the prior results of structural analysis of Piers 27 and 29, it was determined that no pier can meet the very high standard of art asset protection the museum requires. Moreover, the Port's RFP has not yet been formulated nor its scope determined. Given the time requirement for preparation, dissemination, response, review, etc., it will likely be months before issuance of the RFP, and another several months before decision.

Final Candidate Sites Evaluation

Thus, from the standpoint of delay, the three above sites were eliminated from study, leaving five sites for consideration: the Golden Gate

Park site; two Transbay Terminal Area sites; Mid-Embarcadero Blocks 202 and 203; and the Broadway/Embarcadero site.

A separate study of the Transbay District sites was undertaken for the de Young Museum and Academy of Sciences by SMWM. Many options were identified for the de Young, of which two were selected for further review. These included the Transbay Terminal block (Mission, Howard, First and Fremont) and the interior of the block immediately to its west (Mission, Howard, First and Second). The New de Young Museum Study Committee, based largely on perceived problems with control of surroundings and lack of exposure on the western block, opted for the Transbay Terminal block for final study.

Another key step in the study process was revision of the criteria to be used in the comparative evaluation of the four sites. The basic point of departure for reconsidering these criteria were newly established goals and objectives adopted by the Board of Trustees.

As a parallel effort to this study, a series of public meetings were held. At these meetings, two additional goals were proposed and added, and a goal relating to feasibility also was added by the consultants.

Based on these goals and objectives, a series of criteria were devised, along with constituent "measures" to be used in making judgments on the criteria. The goals, objectives and criteria are presented in detail in Section VI. Judgments on them were the core determinants of the conclusions and recommendation in this report.

IV. BASIC ASSUMPTIONS

Among the basic assumptions used in devising the criteria and applying them to the sites, the most important is the museum's site and space program. This is found in the appendices. There are, however, other site characteristics that are considered so important by the museum that they are listed here as site assumptions. The following official museum policy may be viewed as minimum requirements. However, they are also reflected in various of the criteria used for comparative purposes, since they may not be fully met in some instances.

I. Location and Site Criteria

A. Site Area

1. The site should accommodate, at a minimum, development of a building of 250,000 gross square feet (exclusive of parking square footage). Development could include one or more basement levels and two to three stories above ground.

2. The minimum site area should be 150,000 square feet.

3. The site should accommodate additional exterior improvements for the creation of a significant open space component to ease the relationship with the urban setting, and to create a landscaped sculpture garden of approximately 30,000 square feet.

4. The building footprint capacity should be at least 90,000 square feet, plus an additional 10 to 20 percent for site access, loading or unloading.

5. The site ideally should accommodate expansion opportunities of up to 100 percent but no less than 50 percent, which may be accomplished on the existing footprint and/or adjacent or nearby open space.

B. Site Characteristics and Compatible Uses

1. The site or structure should allow the museum to create or project its identity, should allow design flexibility, and should be able to reflect the museum's vision of welcoming diverse audiences.

2. The site should accommodate walk-in visitors, compatible relationships between and to surrounding uses, good association with existing, compatible activity centers and visitor attractions.

3. The site should allow for substantial use of daylight in public areas and galleries.

C. Security

Site and environment should be reasonably secure for visitor and staff access and should enhance the recreational and cultural value of the museum experience.

D. Existing Site Improvements

1. The site should be free of any liens, easements or rights of way that could limit or unreasonably delay development.

2. Any structures located on the site that

would require demolition or renovation should be free from limitations on such demolition or renovation.

E. Utilities

The site should be serviced by all major utilities directly to or immediately adjacent to the site. Such utilities should be of a capacity which can service the proposed development.

F. Transit

1. The site should be accessible to frequently scheduled transit lines with stops at a convenient walking distance.

2. Access to major regional transit such as BART is preferable.

G. Vehicular Access

The site should be directly accessible from at least two major streets and have an on-site capability of providing an off-street parking facility of at least 400 cars either in a separate structure, as a part of the museum building, or in nearby existing parking areas.

H. Toxics

The site should be certified to be free of chemical, metal, mineral, or other soil contaminations, or the cost and feasibility of abatement must be reasonable.

I. Geotechnical

1. Soil conditions of the site should be reasonably free of susceptibility to slippage or liquefaction during a major or great earthquake such that:

   (a) the structure(s) can be upgraded or adequately designed to meet the stringent protection requirements of an art museum; and

   (b) such construction can be undertaken at costs which are not prohibitive.

2. Soil conditions should be reasonably free of underground water or other ongoing drainage conditions.

II. Economic and Public Interest Issues

A. Ownership

The site should be owned by, or available for, acquisition by the City.

B. Master Plan

The site development should be consistent with the objectives and policies of the Master Plan for public use activities and other pertinent Plan elements.

C. Acquisition and Construction Costs

1. Cost of the site/building should bear a reasonable relationship to the public interest benefits achieved at the new location, including relocation from Golden Gate Park and disposition of the existing facility.

2. Costs of acquisition and construction should be reasonable and feasible from public and private sources.

Appendix A provides a more detailed breakdown of the space program as accommodated within two distinct architectural forms: 1) an urban building; and 2) a pavilion or campus pattern and form.

THE FOUR FINALIST SITES

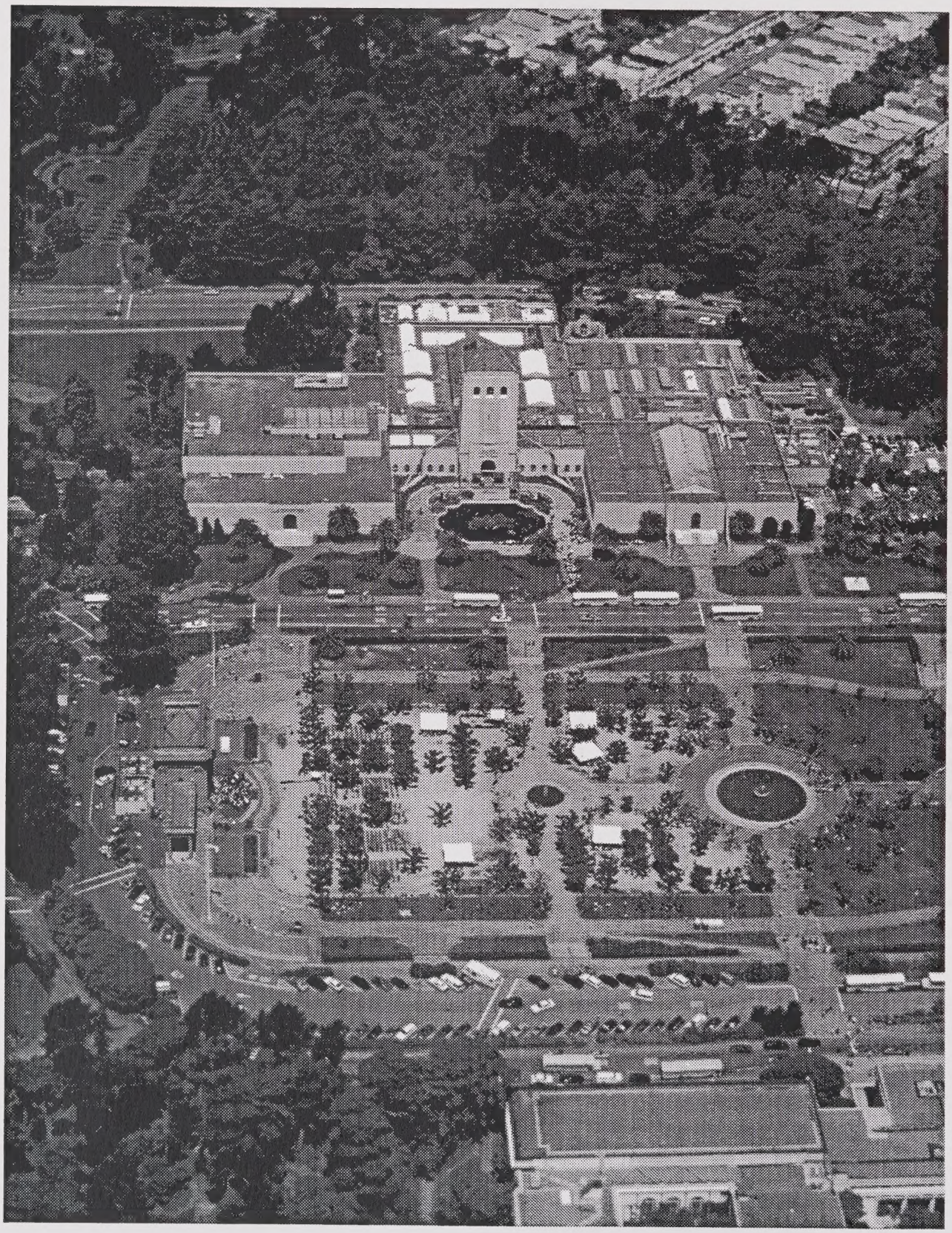
V. THE FOUR FINALIST SITES

The following are the four finalist sites. A prototypical and highly conceptual development plan has been prepared for each to convey in graphic form one possible means for siting and configuring the museum.

Golden Gate Park

This approximately eight-acre site, located within renowned Golden Gate Park, enjoys a pleasant aesthetic setting of an active and distinguished urban park. Being in the park in the western portion of the city, the site is removed from urban activity and from major transit facilities, hotels, and other attractions located in the downtown and central area of the city. Yet the immediate clustering of cultural facilities and museums around the site helps to generate activity and create a locally identifiable space within the park. The site is screened from view from Fulton Street, the major thoroughfare that constitutes the park's northern border.

Although the structure is largely shielded from view from JFK Drive, it enjoys a level of visual prominence within its enclosed setting. Because of its largely hidden quality, the site does not have enormous public exposure, although its location is fairly well known to the public. The site is situated along the northern edge of the Music Concourse, a formally landscaped pedestrian area providing walking paths and seating areas. The Music Concourse provides an identifiable pedestrian-oriented space, and acts as an organizing element around which the de Young Museum, Asian Art Museum, Japanese Tea Garden, and California Academy of Sciences form a unique and identifiable space in the park. Nearby open space is abundant with heavy recreational use. The Asian Art Museum is slated to leave this area and relocate to the Old Main Library building.



GOLDEN GATE PARK

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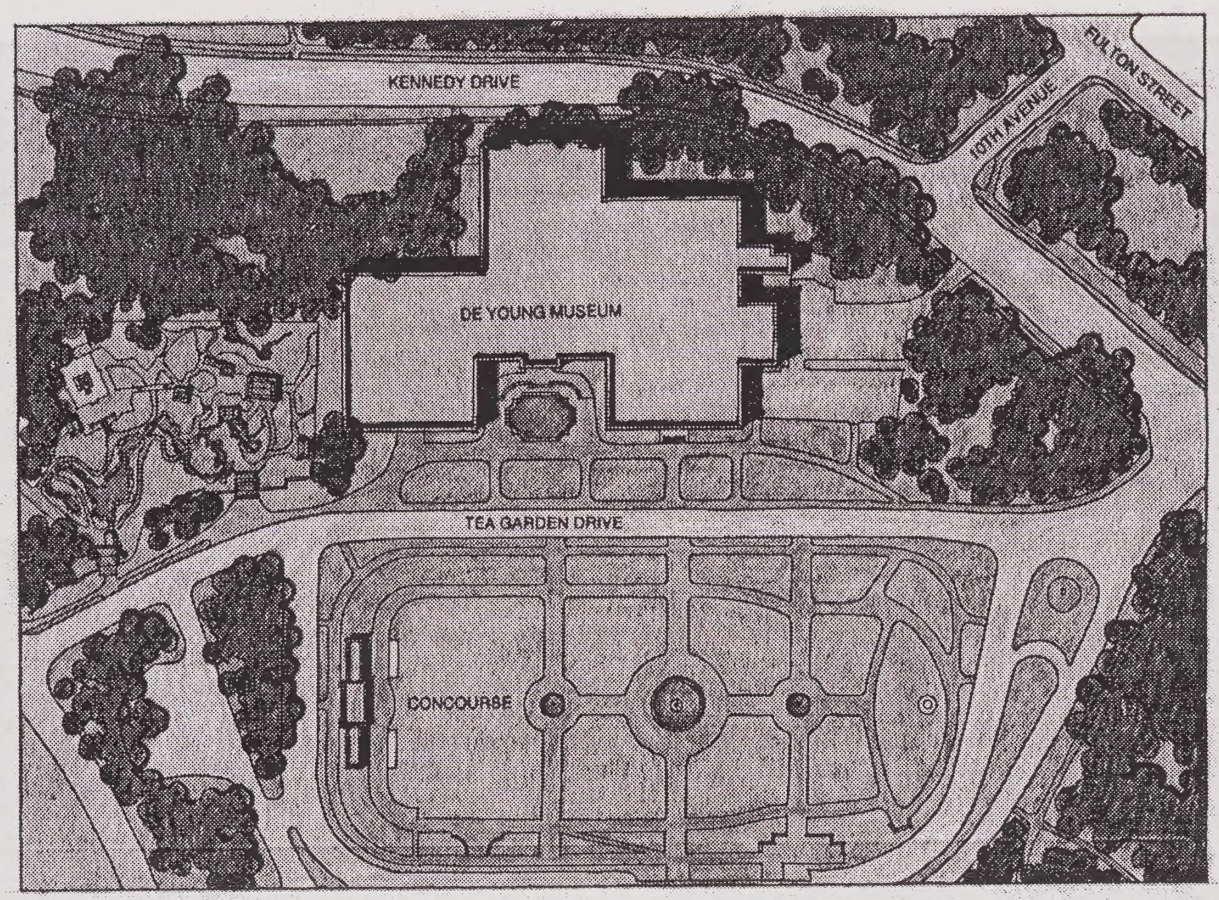

GOLDEN GATE PARK

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May 1997

TRANSBAY TERMINAL

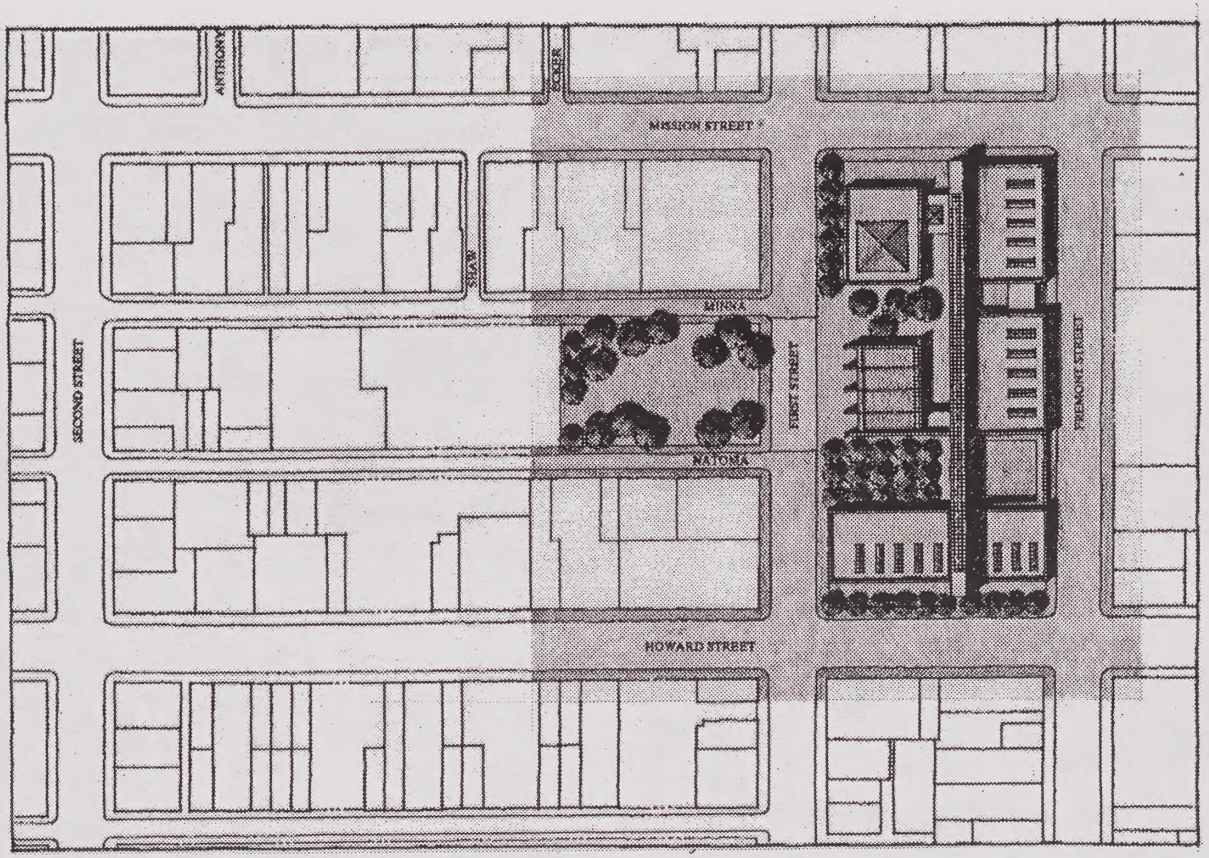
Transbay District

The selected Transbay site, bounded by Mission, Howard, First, and Fremont streets, encompasses approximately 3.8 acres. The existing Transbay Terminal is currently located at this site, as well as a surface parking lot and a two-story manufacturing building to the south of the Terminal. The site is zoned for commercial uses. The surrounding area is a mix of commercial office, transit, surface parking, retail, and light industrial uses. The area immediately adjacent to and south of the site is characterized by mixed-use lower buildings and surface parking lots. Office buildings with ground-floor retail predominate along Mission Street, while small-scale industrial uses front the alley streets such as Natoma, Tehama and Clementina streets. The site and adjacent properties lack greenery and open space. There are some vacant and underutilized parcels in the area, providing opportunities for new development and open spaces. The planned relocation of the Transbay Terminal from this site also opens up the area to new development opportunities, although the proposed new downtown CalTrain extension and underground station traverse the site.

Situated in a highly urban setting, the site occupies a central location within downtown San Francisco. Although in close proximity to vibrant downtown districts such as Yerba Buena Center, Multi-Media Gulch, the financial district, and South Beach, the site itself lacks visual identity. The demolition of the Embarcadero Freeway and the Terminal Separator, as a result of the 1989 Loma Prieta Earthquake, has resulted in large volumes of vehicular traffic passing by the site to and from the Bay Bridge. Given the site's current use as a regional transportation hub, the site enjoys a high level of accessibility by a variety of transportation modes.

TRANSBAY TERMINAL

M.H. deYoung Memorial Museum Site Selection Study



TRANSBAY

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May 1997

MID-EMBARCADERO

The Four Finalist Sites

Mid-Embarcadero

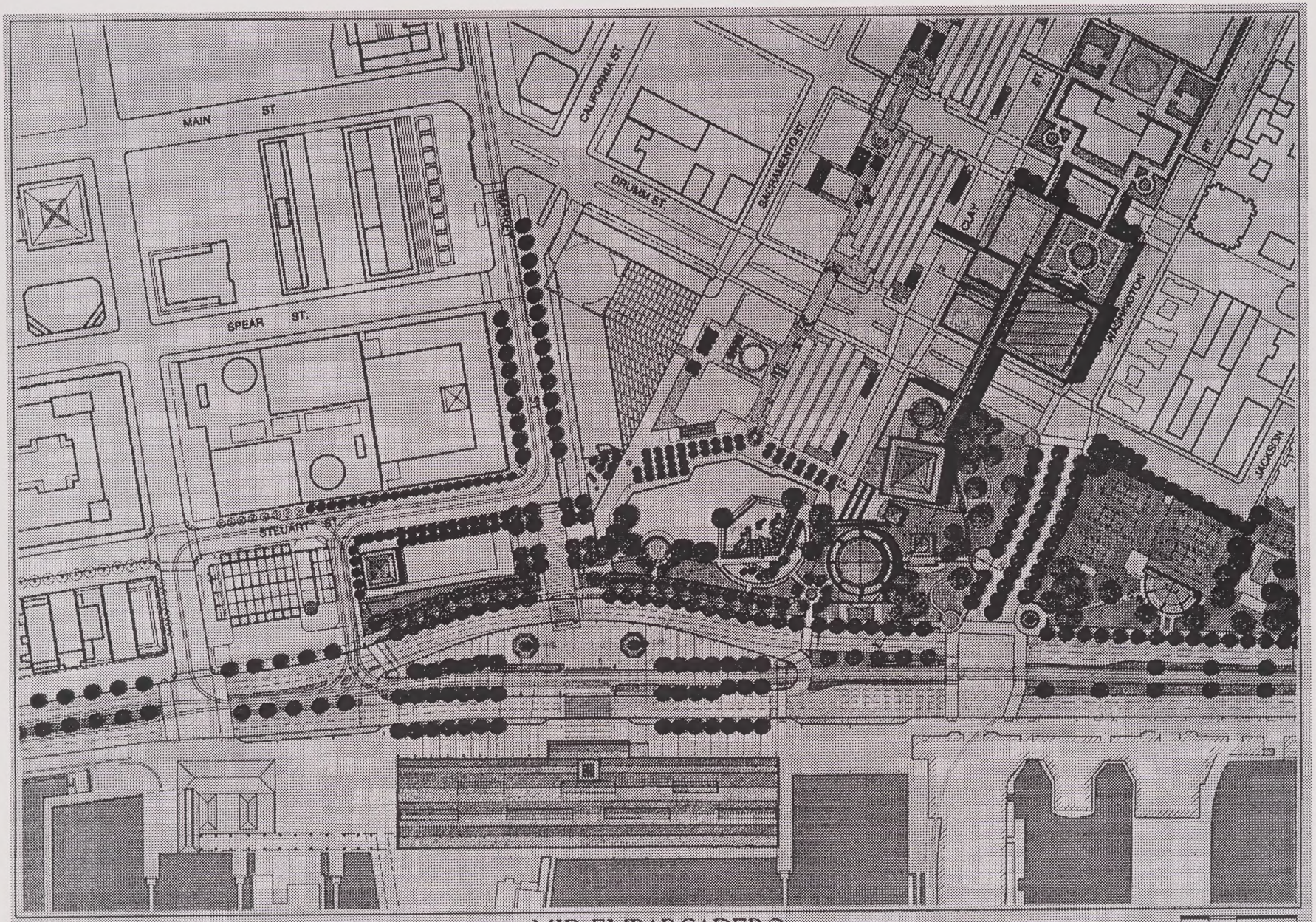
Blocks 202 and 203, between Davis the Embarcadero, Clay and Washington streets, encompass approximately 2.8 acres. The site is currently a landscaped open space with concrete paths and seating, surrounded by a mix of office, retail, and residential uses. This area, the Embarcadero Center-Golden Gateway area, is widely considered one of the most exemplary urban mixed-use projects in the nation. The Embarcadero roadway fronts the site along its eastern boundary, the Embarcadero Center borders the site to the south, Justin Herman Plaza is adjacent to the site on the southeast, the Golden Gateway residential area is on the north, and Maritime Plaza is to the west.

The site is designated as an Open Space (OS) District unless and until it becomes part of the redevelopment area. The character of development in an OS district, including height and bulk, must be in accordance with the policies of the Master Plan. The northern portion of Block 202 is under the jurisdiction of the Recreation and Park Department. Open space is limited, although Justin Herman Plaza provides nearby pedestrian-oriented hard space, and Walton Square Park, approximately three walking blocks to the northwest, provides a full one-block landscaped green space with lunchtime-oriented retail uses.

The site is easily identified by the general public, oriented by nearby landmarks such as the Ferry Building, the Hyatt Regency, the Embarcadero Center, and Justin Herman Plaza. Food and retail services abound and constitute pedestrian-generating attractions in the area. The site also enjoys a high level of accessibility in the form of transit service and walking proximity to other destinations and hotels. Several parking facilities are located near the site, including underground parking associated with the Embarcadero Center and Maritime Plaza. Additionally, Piers 1 and 3 and surface lots in that area currently provide parking spaces.

MID-EMBARCADERO

M.H. deYoung Memorial Museum Site Selection Study



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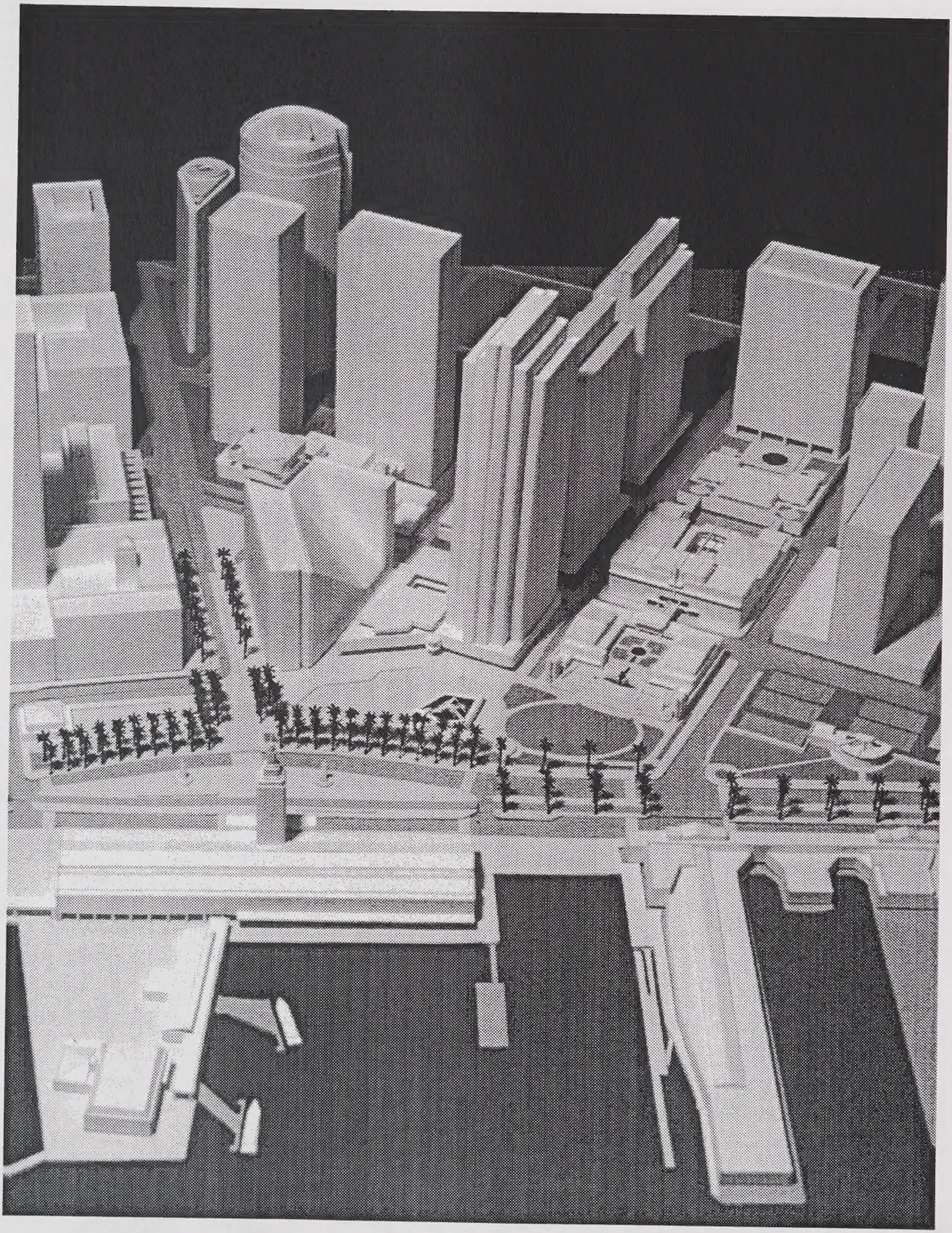
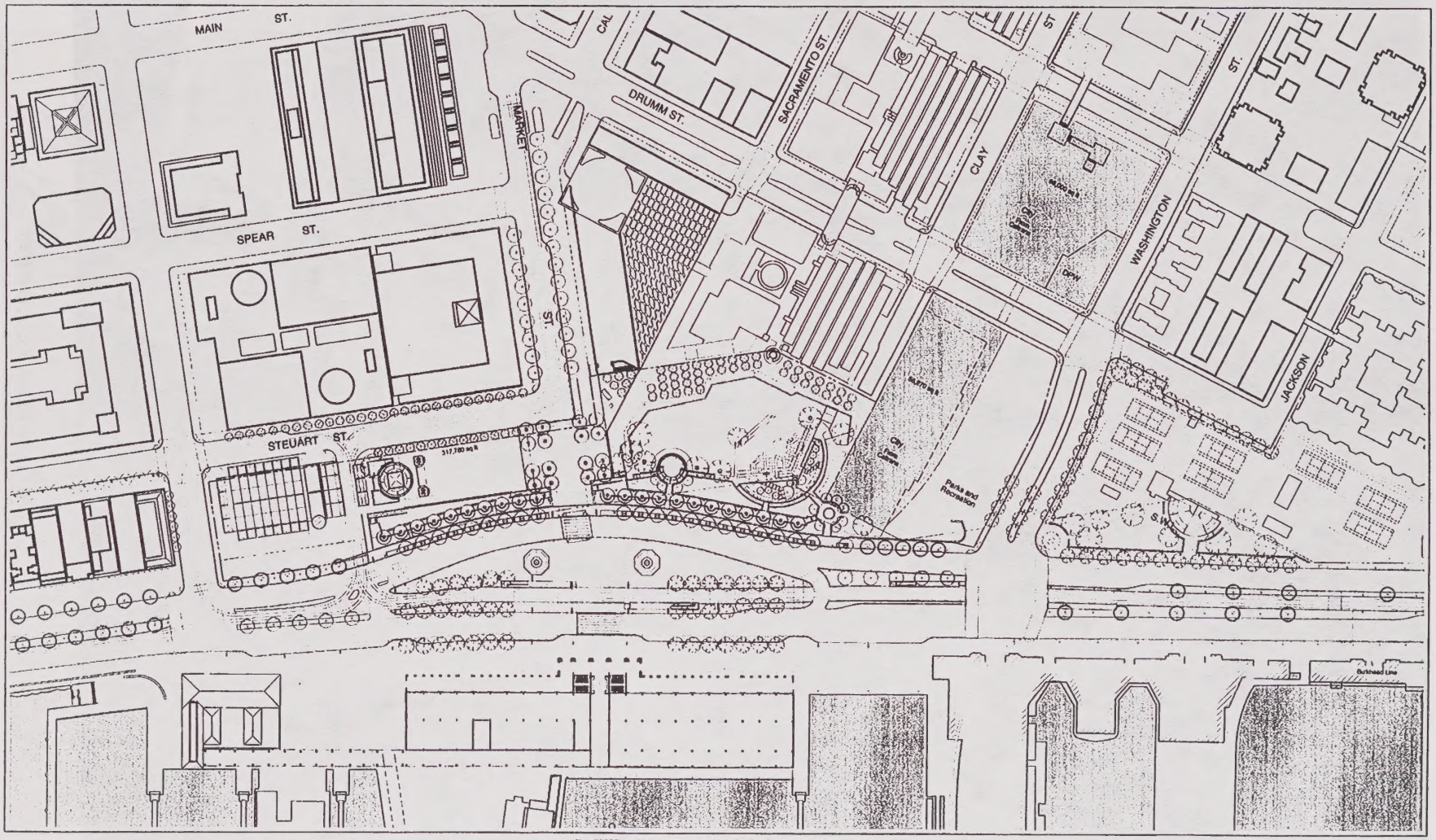
May 1997



MID-EMBARCADERO

The Four Finalist Sites



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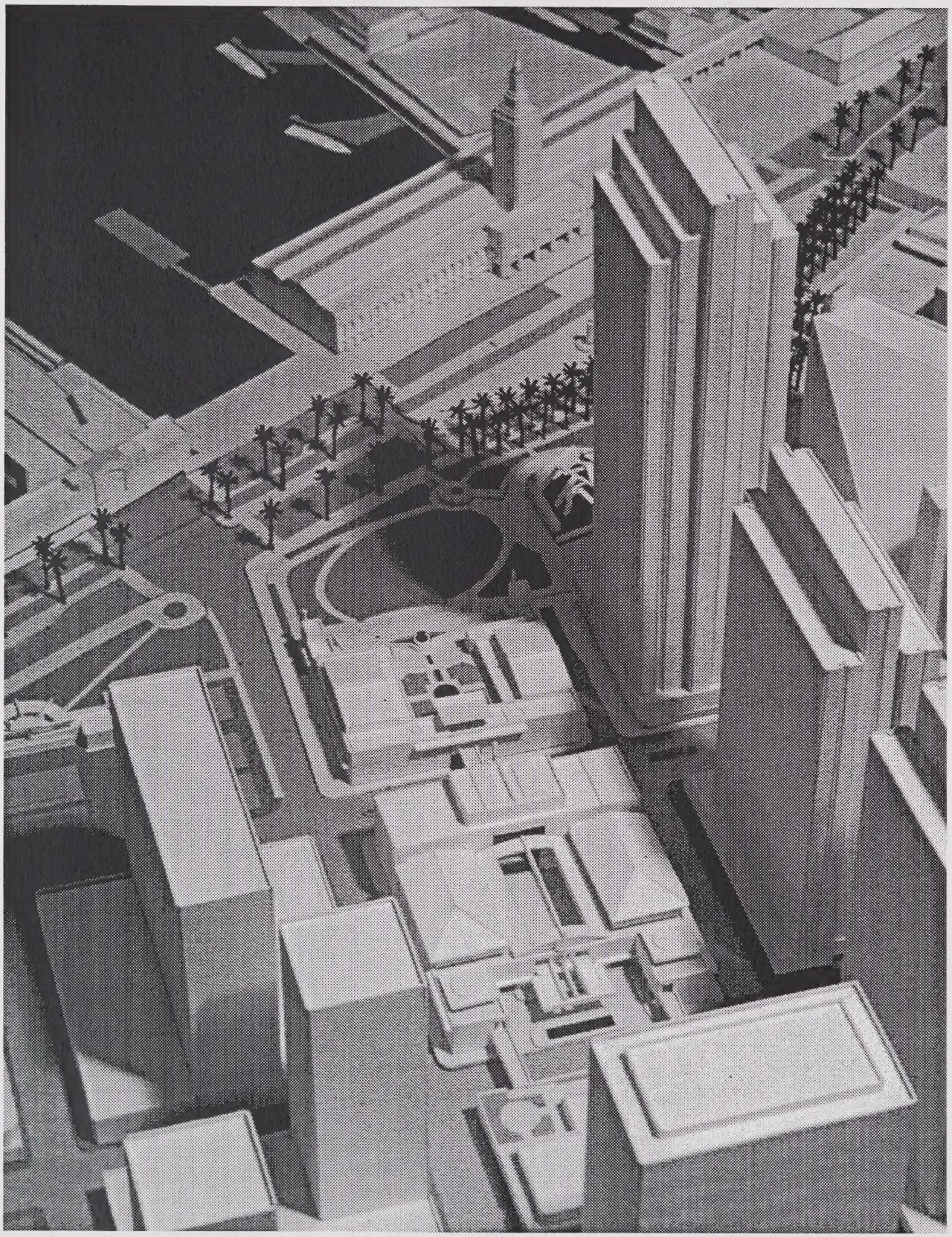
M.H. de Young Memorial Museum Site Selection Study



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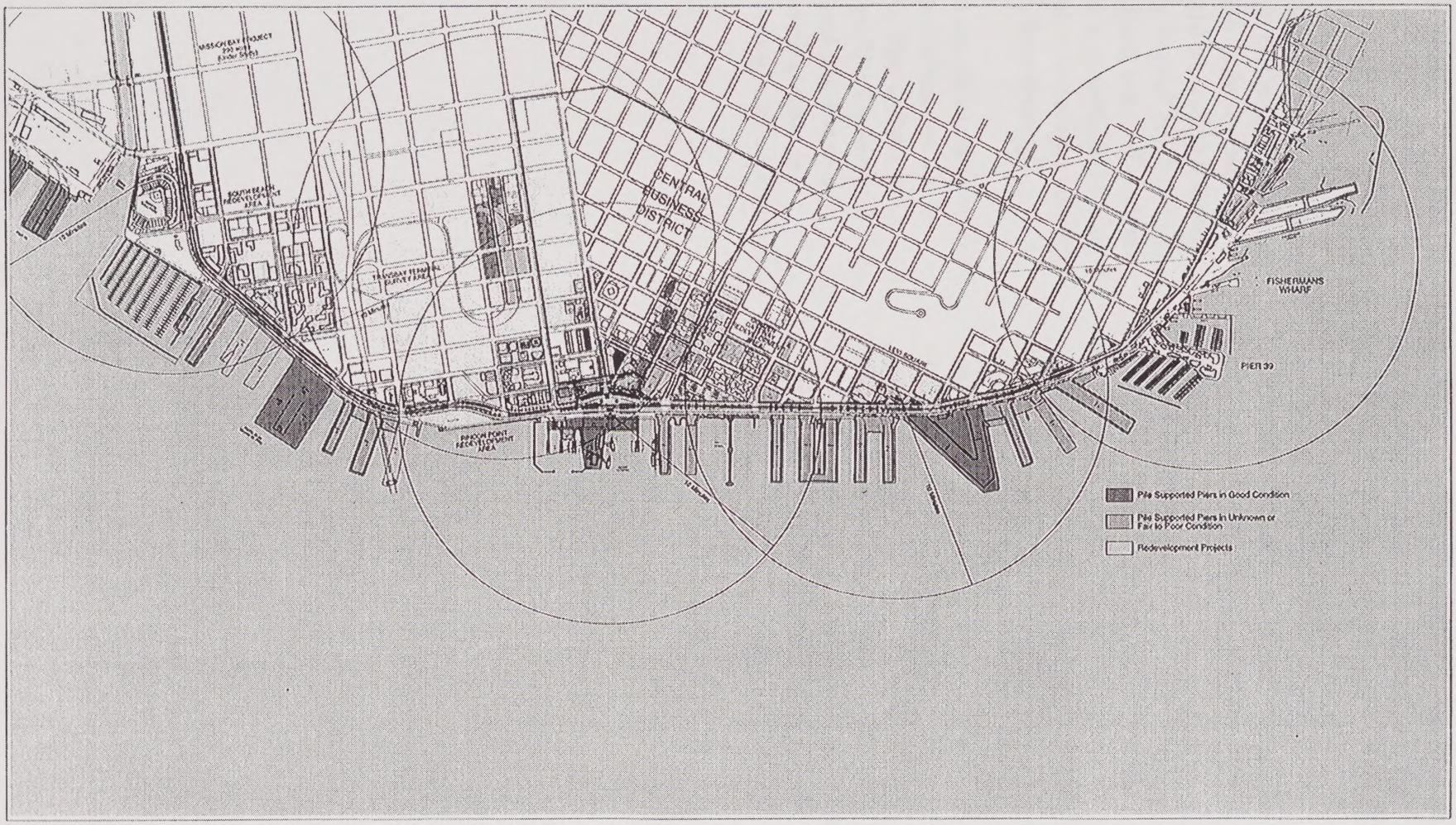
M.H. deYoung Memorial Museum Site Selection Study


CENTRAL BUSINESS DISTRICT
FISHERMANS WHARF
PIER 39
Pile Supported Piers in Good Condition
Pile Supported Piers in Unknown or Fair to Poor Condition
Redevelopment Projects

NORTHEAST WATERFRONT

M.H. de Young Memorial Museum Site Selection Study

Broadway/Embarcadero

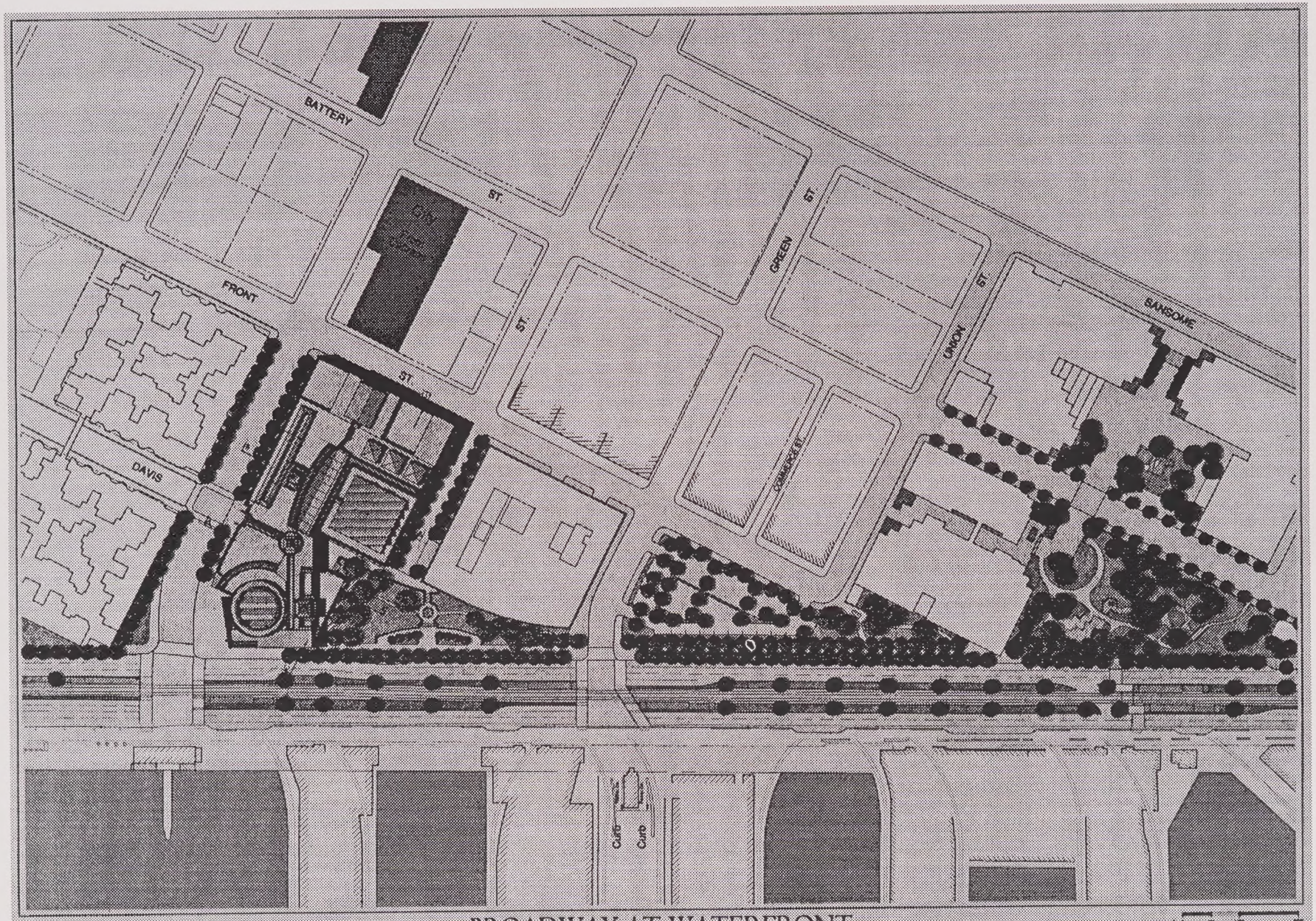
The Broadway/Embarcadero site is a three-acre triangular site at the corner of Broadway and Embarcadero, bounded by Front Street to the west and Union Street to the north. Currently, the site consists of two privately owned buildings, a city-owned lot, and four seawall lots controlled by the Port of San Francisco, serving as surface parking lots. A fifth Port-owned lot on the site is ground-leased to a private entity that has constructed a building and leased it to ABC Broadcasting.

The Port-controlled seawall lots are within the Northeast Waterfront Subarea of the Waterfront Land Use Plan and are designated as a Waterfront Mixed Use Opportunity Area, allowing for open space and a variety of commercial uses, including museums. Surrounding the site are smaller-scale offices in the Northern Waterfront district, the Gateway Commons residential development, and the waterfront promenade, which allows for direct bay exposure and views. The character of the site is one of an "edge" between distinct functional areas, giving the site a clear identity. Levi Plaza and Pier 39 are also within close proximity to the site.

Despite being on the fringe of downtown activities, the Broadway/Embarcadero site enjoys a high level of visibility due to the site's exposure to the waterfront promenade, a popular attraction for residents and tourists. Additionally, the Muni "F" line, which will connect downtown to Fisherman's Wharf by using historic streetcars running along the Embarcadero, has the potential of becoming a major tourist attraction and as such could become a popular mode of access to the site.

BROADWAY AT WATERFRONT

M.H. deYoung Memorial Museum Site Selection Study

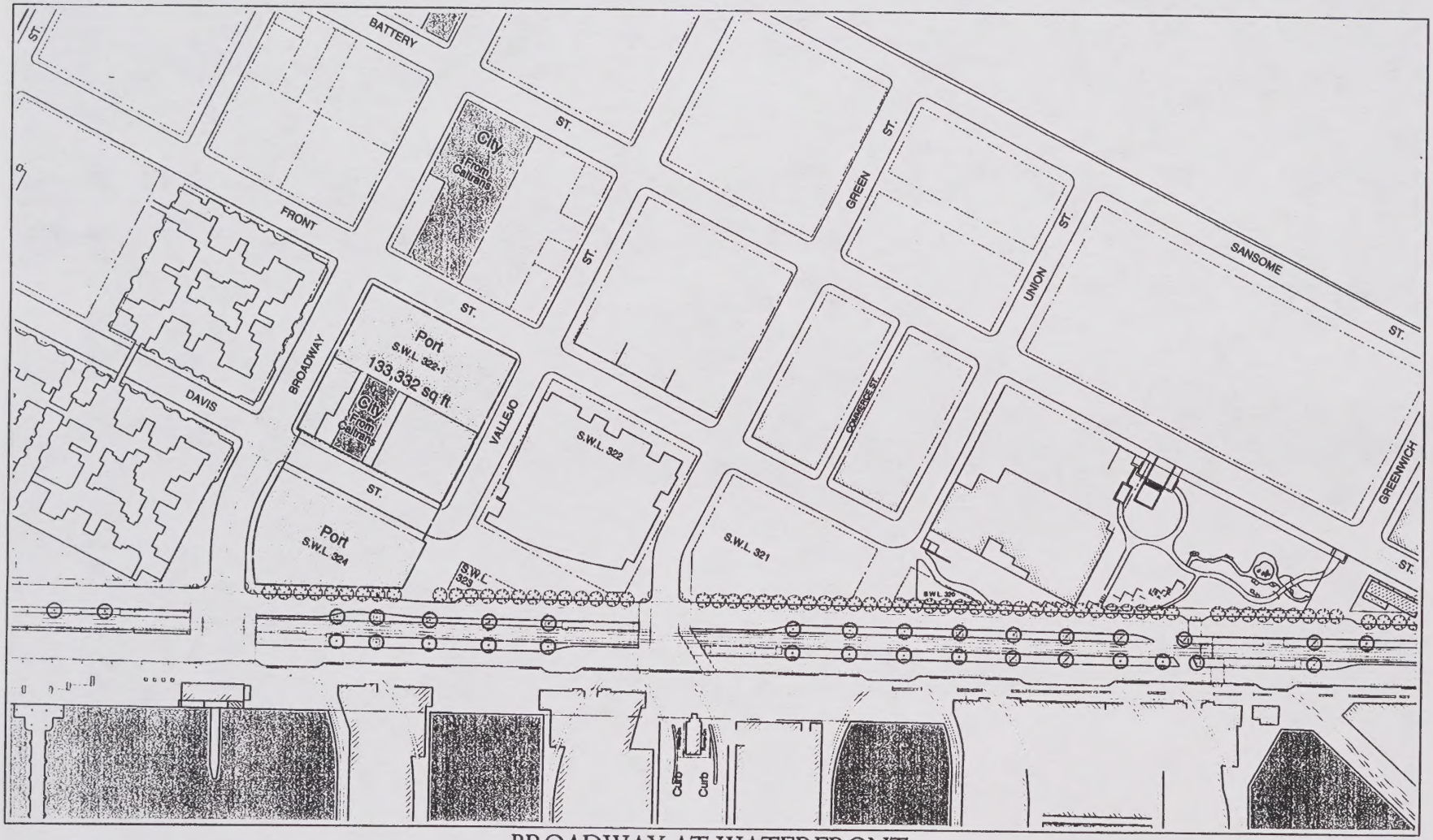


BROADWAY AT WATERFRONT

M.H. de Young Memorial Museum Site Selection Study

Prepared by Sedway Consulting, ROMA Design Group and Associated Consultants

May 1997



BROADWAY AT WATERFRONT

M.H. de Young Memorial Museum Site Selection Study

VI. THE BASIS FOR JUDGMENT: GOAL AND OBJECTIVE-BASED

In January 1997, the Board of Trustees of the Fine Arts Museums of San Francisco adopted a series of goals and objectives which reflected the vision it was seeking for the new de Young Museum. This document included a listing of six goals and corresponding objectives. It was determined that these were the logical points of departure for comparative evaluation of sites and more specifically for the specific criteria against which the sites would be measured.

Based on input from a series of public forums held on the new de Young Museum, two new public interest goals were added: #4 — Enhance the Museum Experience; and #8 — Support the City and County of San Francisco. Finally, a ninth goal was added, somewhat different than the others: #9 — To Assure Project Feasibility. These goals and objectives were used to organize and formulate 45 evaluation criteria to make comparisons among and between the alternative sites. The process went further in technical terms by listing 150 measures (of a numerical and/or statistical nature), here termed factors, which could be used to gain an even clearer insight into the qualities and characteristics of each site.

The time horizon for projecting conditions against which the criteria are applied is five years from now (i.e., 2002), when construction of the new museum building is expected to commence. That is, the setting and conditions that would be prevalent in the area are not those that exist today, but those reasonably foreseeable five years hence.

The listing that follows conveys these site selection determinants. The goals and objectives are those adopted by the Board of Trustees, with corresponding criteria and factors provided by the study team.

For each of these criteria, and in some important instances for the factors themselves, a determination was made for each as to how much the site meets the particular criterion and factor. This is called a "rating" in this study. For purposes of simplicity, these are five points on a continuum: Very High, High, Average, Low, and Very Low. The ratings may reflect mitigating cost, delay, quality, lack of remedy, etc.

Obviously, not all the criteria are of equal importance. Some of the criteria are deemed to be of overriding importance; these are termed generically as "supercriteria." Even among supercriteria, some are more important than others. Hence, for purposes of conveying importance, three different levels, noted by a varying number of asterisks (*), are identified: Critical ***; Highly Significant **; and Significant *. These designations are noted in the following listing of all determinants. Where no asterisk is shown, the criterion is considered as of moderate importance.

Goal 1: To Assure Safety

Objective: Seismic Safety For The Public, Staff And Works Of Art

****Criterion 1.1: Potential of Site/Building for Safety and Seismic Stability of Asset Protection Level*

Factor: Character of soil conditions, including localized geotechnical conditions, including existence of fill, bay mud, sand, rock, etc., and extent of potential for slippage, or liquefaction during a major or great earthquake

Factor: Adequacy of existing building structure for different "design scenarios"

Factor: Potential for affordable structural upgrading or design to meet stringent protection requirements of an art museum

Factor: Risk of damage from seismic events

Factor: Risk of damage from slope instability, groundwater incursion, flooding, etc.

Factor: Absence or extent of underground water or other similar potential risks

Factor: Potential for achieving required structural forms which enhance safety

Objective: A Facility Free From Hazardous Materials

Criterion 1.2: Level of Cost to Abate Hazardous Materials

Factor: Existence of hazardous materials and toxics, including chemical, metal, mineral or other soil contaminations, and extent of pervasiveness, costs of removal, etc.

Objective: A Heating/Ventilation And Air Conditioning System That Is Code Compliant And Of Museum Quality

Criterion 1.3: Ability of Site/Building to Accommodate State-of-the-Art HVAC System

Factor: Size/shape of site/building (250,000 square feet of floor space, exclusive of parking, in 2 - 3 stories, plus one or more subsurface levels)

Objective: Compliance With Electrical Codes And Fire And Life Safety Detection And Suppression Systems

Criterion 1.4: Ability of Site/Building to Comply with Electrical and Fire and Life Safety Codes

Factor: Size/shape of site/building.

**Criterion 1.5: Ability of Emergency Services, Especially Fire, to Respond to Emergency Situations*

Factor: Existence of fire protection access corridors and staging areas

Factor: Distance from nearest fire station

Objective: A State-Of-The-Art Security System

****Criterion 1.6: Ability of Site/Building to Assure Optimum Public Safety*

Factor: Size/shape of site/building

Factor: Level of crime in area

Factor: Orientation of building walls and entrances

Factor: Existence of accessible windows or building openings

Factor: Availability of suitable electrical system in existing building

Factor: Distance from nearest police station

Objective: Improved Art Delivery, Movement And Handling Systems

**Criterion 1.7: Ability of Site/Building to Assure Adequate and Efficient Internal Traffic and Loading Areas*

Factor: Sufficient internal space of an additional 10-20% of building square footage for site access, loading and unloading.

Factor: Configuration of streets and alleys in area

Factor: Relationship to major thoroughfares

Factor: Distance from adjacent structures

Goal 2: To Improve Access

Objective: Provide Sufficient Access For All Visitors

**** Criterion 2.1: Museum to be at a Location Which Provides Optimal Accessibility for All Visitors, by Transit, Vehicle, Bicycle or Walking at All Times of the Day and Week*

Factor: Length of time-distance travel for all potential user groups and city residential areas

Factor: Location at a site which provides an appropriate balance of transportation modes

Factor: Proximity to transit systems with sufficient capacity to serve projected visitorship, especially high-capacity, heavy-rail system (e.g., BART)

Factor: Distance from stations or stops of transit system

Factor: Proximity to parking garages with existing remaining vehicular capacity at times of peak museum attendance

Factor: Distance from, or adjacency to, major vehicular, bicycle and pedestrian thoroughfares

Factor: Dependence upon arteries with adequate vehicular capacity not lessened by points of congestion, with immediate access to at least two major streets.

Factor: Number of points of public access, including pedestrian access

Objective: A Fully-Accessible Facility For The Disabled

**Criterion 2.2: Ability of Building to Provide Handicapped-Accessible Approaches, Entries and Other Means of Movement Throughout the Building*

Factor: Size/shape of site/building

Factor: Availability of drop-off points

Factor: Absence of difficult changes in elevation or circuitous pedestrian ways on site and from access points to building

Objective: Improve Public Transportation And Auto Access

***Criterion 2.3: Assure that Museum is Located Within Walking Distance of Parking Spaces and/or Garages Which, with Public Transit, Can Accommodate the Vehicles of a Substantially Increased Number of Museum Visitors*

Factor: On-site capability of off-street parking for 500-900 cars either in separate structure, as

part of museum building, or in nearby existing parking areas.

Factors: See Criterion 2.1, above

Criterion 2.4: Assure That the Functional and Operational Needs of the Museum Are Met for Transfer and Delivery of Works of Art, Supplies and Other Goods and Equipment

Factor: Existence of separate right(s)-of-way and needed turnaround areas for truck loading and other internal museum needs

Factor: Suitability of location of loading and transfer docks

Goal 3: To Accommodate A Growing Art Collection

Objective: To Satisfy Space Requirements Of The Collection Development Plan

**Criterion 3.1: Ability to Accommodate Specialized Areas for Development of Collection*

Factor: Size/shape of site/building

Factor: Opportunity for future expansion of original building size of from 50 - 100%

Objective: To Encourage Donors To Improve And Expand The Collection Through New Gifts And Purchases

**Criterion 3.2: Ability to Convey Sense of Worthiness of Museum and Accommodate Special Areas for Display, Meetings, Liaison, etc., for Potential Donors and Sellers*

Factor: Size/shape of site/building

Factor: Level of amenity of setting

Factor: Absence of conflicts with surrounding elements, including land uses and operating effects

Factor: Absence of adverse environmental conditions, including glare, noise, and wind.

Objective: To Improve Study, Storage And Conservation Areas

Criterion 3.3: Ability to Include Specialized Areas with Varying Needs for Access

Factor: Variation in types of spaces available

Goal 4: To Enhance The Museum Experience

Objective: Expanded Gallery Space For The Permanent Collection

**Criterion 4.1: Potential for Site/Building to Provide Spaces for Galleries and Exhibits which are of Suitable Size, Configuration and Contiguity and which are Substantially Larger than the Current Space Allocated for Each Area*

Factor: Size/shape of site/building

Factor: Configuration of spaces within an existing building

Factor: Existence of future museum expansion space of 50 - 100% increase

**Criterion 4.2: Adequate Ambient Light*

Factor: Number of sides of museum blocked

Factor: Level of shadowing of direct sunlight

Factor: Amount of blockage of north light

Objective: Assure A Pleasurable Experience For Museum-Goers

***Criterion 4.3: Allow Museum to create/project its identity and reflect the vision of welcoming diverse audiences.*

Factor: Availability of site for outstanding design if totally new building

Factor: Building to convey a welcoming and inviting appearance, or be easily adaptable for doing so

**Criterion 4.4: Avoid or Lessen Conflicts with Activities or Physical Conditions in Surrounding Areas*

Factor: Incidence and seriousness of adjacent or proximate land use incompatibilities

Factor: Surrounding physical form appearance seen from exits and windows

Factor: Seriousness of impacts from operating effects of surrounding businesses, facilities or utilities

Factor: Quality of views from building

Factor: Amount of ambient light and air

**Criterion 4.5: Enhancement of Museum-going Amenity*

Factor: Substantial amounts of daylight in public areas and galleries

Factor: Ability to combine visit with visits to other attractions and compatible activities

Objective: Expanded Visitor Services Including A Larger Entryway, Coatcheck Area And Restrooms

Criterion 4.6: Potential for Site/Building to Provide Space Which is Substantially Larger than Current Space for Entryway, Coatcheck Area and Restrooms

Factor: Size/shape of site/building

Objective: An Improved Museum Store

Criterion 4.7: Potential for Site/Building to Provide Space, Suitably Located for Maximum Exposure and Convenience, and Which is Substantially Larger than Current Store

Factor: Size/shape of site/building

Objective: An Improved Cafe

Criterion 4.8: Potential for Site/Building to Provide Space, Suitably Located for Maximum Exposure and Convenience, and Which is Substantially Larger than Current Cafe

Factor: Size/shape of site/building

Factor: Potential for kitchen in existing building

Objective: A Sculpture Garden

Criterion 4.9: Availability of Nearby or Adjacent Open Space with Potential for Use as Sculpture Garden with an Absence of Disturbing Noise, Wind and Glare

Factor: Amount of surrounding open space to buffer an urban setting, if any

Factor: Sufficient space to create a landscaped sculpture garden of approximately 30,000 square feet

Factor: Levels of impacting noise, wind and glare

Goal 5: To Broaden Education Services

Objective: Inclusion Of Multi-Purpose Educational Classrooms And Resource Center (Including Auditorium)

Criterion 5.1: Assure That Site/Building are Sufficiently Large to Accommodate Classrooms and Resource Center, including an Auditorium, and the Potential to Provide Secure Access to Such Facilities at Hours Which May Be Different than Galleries

Factor: Size/shape of site/building

Objective: Expanded Orientation, Information, And Interpretive Spaces/Galleries, Incorporating New Technologies

Criterion 5.2: Ability to Accommodate Technologically Advanced Communication Systems Providing Orientation, Information and Interpretation

Factor: Size/shape of site/building

Objective: An Expanded Library

Criterion 5.3: Ability to Accommodate a Library with Adequate Facilities for Research, Public Use and Contemplative Reading

Factor: Size/shape of site/building

Goal 6: To Attract Popular Temporary Exhibitions To San Francisco

Objective: Reputation As World-Class Facility With Assured Audiences

****Criterion 6.1: Ability to Accommodate and Artistically Stimulate A Large Number of Visitors*

Factor: Size/Shape of Site/Building Suitable for Substantially Increased Attendance

Factor: Potential for Crowd-Handling Efficiency

Objective: Expand Public Art Awareness Through Exposure To New Ideas And Cultures And Assure Secondary Benefits For Surroundings And City

**Criterion 6.2: Potential as an Attraction with a Synergistic Presence Capitalizing on Nearby Activities*

Factor: Extent to which nearby restaurants and hotels benefit

Factor: Projected amounts of increase in hotel taxes

Factor: Potential for visitor base with diversity in character and location

Goal 7: To Maintain Economic Vitality Of Museum

Objective: Design A Cost-Efficient Facility That Will Minimize Operating Expenses

Criterion 7.1: Ability to Concentrate Similar Administrative and Curatorial Activities

Factor: Number of diverse locations of same activity

Factor: Proximity of related activities

Factor: Proximity of FAMSF museums to each other and to administrative center

Objective: Increase Earned Revenue From All Income-Producing Activities, Including Admissions,

Temporary Exhibitions, The Cafe, Bookstore, And Auditorium, Etc., Through Increased Attendance

***Criterion 7.2: Ability of Site to Optimize Revenues by Attracting Visitors for Viewing Art, Patronizing the Bookstore and Cafe, and Event Rental, Within the Capabilities of Likely Visitors to Afford Admission, by Assuring Ease of Access, Public Awareness and Visibility, and Projecting an Inviting Museum "Face"*

Factor: Projected attendance

Factor: Level of public awareness of location

Factor: Income levels of probable visitors

Factor: Proximity of synergistic attractions, including other museums

Factor: Proximity of hotels and other cultural/educational facilities

Factor: Proximity of employment centers

Factor: Proximity of other pedestrian-generating facilities

Factor: Proximity of restaurants

Factor: Proximity of community, recreational and urban services

Factor: Proximity of art galleries dealing in art of similar artists and periods

Factor: Avoidance of proximity of facilities which compete for revenue and may lessen attendance

Factor: Potential for non-museum visitor patronage of store and cafe

Factor: Potential for visibility and prominence of facility

Factor: Potential for conveying welcoming, inviting appearance

Objective: Increase Rental Usage By Outside Groups, Particularly During Non-Public Hours

**Criterion 7.3: Potential for Creating Dramatic, Inviting Event Rental Spaces*

Factor: Quality and number of available views

Factor: Amount of natural light available

Factor: Level of amenity of setting

Factor: Number and convenience of drop-off points for catering and visitors

Factor: Centrality of location for potential users, including local residents, conventioneers, etc.

Factor: Ability to provide access during non-public hours

Goal 8: To Support The City And County Of San Francisco

Objective: Seek A Compatible And Synergistic Relationship With The Museum's Neighborhoods

***Criterion 8.1: Increase Compatibility with Surrounding Areas*

Factor: Compatibility of Land Uses

Factor: Compatibility of Physical Form

Factor: Blockage of Important views

Factor: Points of conflict with traffic movements

Objective: Expand Contributions To The San Francisco Economy

**Criterion 8.2: Extent of Revitalization of Surrounding Areas Consistent with City Programs*

Factor: Potential for Reinforcing Renewal Programs

Factor: Opportunities for Employment Opportunities for City Residents

Factor: Level of Stimulation and Support of Restaurants

Factor: Level of Stimulation and Support of Hotels

Factor: Level of Stimulation and Support of Retailing

Objective: Adhere To Public Policies

**Criterion 8.3: Consistency with City Master Plan, Other Comprehensive Plans, Redevelopment Plans, Zoning and Subarea Plans*

Factor: Recency and Relevance of Planning Policy

Factor: Divergence from Policy

**Criterion 8.4: Public Economic Enhancement*

Factor: Sales and Property Tax Revenues

Factor: Increase in Muni Usage

Goal 9: To Assure Project Feasibility

Objective: Expedite Approval Of Proposed Building

****Criterion 9.1: Avoidance of Legal or Processing Problems*

Factor: Consistency with San Francisco Master Plan and all elements

Factor: Accommodation within existing zoning

Factor: Legal clarity of ownership and tenure

Factor: Number of needed permits

Factor: Complexity of procedures and requirements

Factor: Number of permitting agencies

Factor: Incidence and activities of interest groups

Factor: Potential for litigation

Factor: Implications of city charter

Factor: Implications of federal and state legislation

Factor: Internal administrative requirements of agency with jurisdiction or ownership

Factor: Prominence of roles of advisory or other citizen entities

Factor: Likelihood of meeting fire and building codes

Factor: Level of secondary and indirect costs of securing approvals and of planning, environmental, legal, appraisal, etc., professional costs

**Criterion 9.2: Limiting Costs and Delay of Acquisition*

Factor: Cost of site/building, reflecting relocation and disposition of existing facility, to bear reasonable relationship to benefits from new location

Factor: Availability for acquisition by the city as part of museum project.

Factor: Cost of options or lease payments

Factor: Cost of buying out existing leases

Factor: Cost of exactions or dedications

**Criterion 9.3: Limiting Cost and Delay of Demolition and Construction*

Factor: Cost of, or delay in, demolition

Factor: Cost of construction

Factor: Need for incurring special site-related costs

Factor: Need for meeting special construction requirements

Factor: Cost of architectural services

Factor: Potential for archaeological finds

Criterion 9.4: Limiting Cost and Delay of Relocation

Factor: Necessity for interim museum closure (total or partial) and corresponding loss of revenue

Factor: Level of move-out and move-in costs

Criterion 9.5: Limiting Cost and Delay in Securing Adequate Utilities

Factor: Availability of adequate service by all major utilities

***Criterion 9.6: Availability of Financial Support*

Factor: Potential for grants, subventions, or other financial assistance

Factor: Potential for private contributions

****Criterion 9.7: Likelihood of Voter Approvals (General Assessment Only; No Polling Involved)*

Factor: Levels of neighborhood opposition

Factor: Levels of interest group opposition

Factor: Projected vote outcome

***Criterion 9.8: Potential for Future Expansion in Adjacent Areas/Building*

Factor: Anticipated sites for expansion

Criterion 9.9: Level of Ease of Construction

Factor: Areas for construction equipment operation and movement, existence of disruptive utilities and utility easements, contiguity of potentially interfering structures, and suitable site drainage

Factor: Absence of liens, easements or rights-of-way which could delay development

Factor: Proximity of other buildings which may be adversely affected during construction

VII. FINDINGS ON CANDIDATE SITES

The full reports by each of the firms on the consulting team are included in the appendices. These reports convey in technical terms the application of the criteria to each of the sites. Rutherford & Chekene predominantly addressed the criteria dealing with Safety and Construction Feasibility. Sedway Consulting predominantly addressed the criteria dealing with Safety, Growth, Museum Experience, Exhibits, City Support, and Feasibility. Sedway Group predominantly addressed the criteria dealing with Feasibility and Finances. Swinerton & Walberg predominantly addressed the criteria dealing with Safety and Construction Feasibility. Wilbur Smith Associates predominantly addressed the criteria dealing with Safety, Access, Finances, and City Support. ROMA contributed to addressing criteria dealing with Internal Access, Growth, Museum Experience, Education and Exhibits.

Composite findings are shown in both verbal and graphic form on the two charts on the following pages. Further detail on the findings may be found in the applicable appendix, as noted above.

NEW DE YOUNG MUSEUM SITE RESTUDY
SUMMARY EVALUATION COMMENTS

Goal/Criterion	Golden Gate Park	Transbay Terminal	Mid-Embarcadero	Broadway/Embarcadero
Goal 1. ASSURE SAFETY				
1.1 Art Asset Protection***	Severe seismic shaking; shallow foundations; conventional excavation support.	High seismic shaking; deep pile foundations; special excavation support & dewatering; potential CalTrain extension.	High seismic shaking; deep pile foundations; special excavation support & dewatering.	High seismic shaking; deep pile foundations; special excavation support & dewatering.
1.2 Hazardous Materials	$100,000 cost below grade and $2,500,000 cost in existing structures.	With station: $3,000,000 cost below grade and $100,000 cost in existing structures; without station: $4,900,000 and $100,000, respectively.	$4,000,000 cost below grade.	$4,600,000 cost below grade and $100,000 cost in existing structures.
1.3 HVAC System	Current technology can provide desired level of filtration, humidity control, heating, and air conditioning. Cleaner air.	Current technology can provide desired level of filtration, humidity control, heating, and air conditioning.	Current technology can provide desired level of filtration, humidity control, heating, and air conditioning.	Current technology can provide desired level of filtration, humidity control, heating, and air conditioning.
1.4 Safety Codes	Site served by adequate utilities to provide fully operational electrical, fire protection, and life safety systems.	Site served by adequate utilities to provide fully operational electrical, fire protection, and life safety systems.	Site served by adequate utilities to provide fully operational electrical, fire protection, and life safety systems.	Site served by adequate utilities to provide fully operational electrical, fire protection, and life safety systems.
1.5 Emergency Services*	2/3 mi. from Station 31; uncongested travel path.	Greatest possibility of congestion en route.	1/3 mile from Station 13; direct travel path.	1/2 mile from northeast station; could encounter congestion.
1.6 Public Security***	Poor visitor security; secluded site.	Adequate security; highly visible site; many passing drivers.	Excellent security enhanced by adjacent sites and private personnel.	Secure site, somewhat removed from downtown activities.
1.7 Site Traffic/Loading*	Best dedicated loading area; only one approach path.	Loading not defined; one-way approach streets.	Private loading facility; arterial approach from all directions.	Semi-private loading area, only two approach arterials.

NEW DE YOUNG MUSEUM SITE RESTUDY
SUMMARY EVALUATION COMMENTS

Goal/Criterion	Golden Gate Park	Transbay Terminal	Mid-Embarcadero	Broadway/Embarcadero
Goal 2. IMPROVE ACCESS				
2.1 Public Accessibility***	Limited local, no regional transit; insufficient parking.	Best local, regional bus access; good parking supply.	Best BART, ferry access; plentiful weekend parking.	Long walk from most transit; limited parking nearby.
2.2 Handicapped Access*	No major obstacles; drop-off uncertain.	No major obstacles; busy intersections.	No major obstacles.	No major obstacles.
2.3 Transit Access**	Few transit lines within walking distance.	Many lines, carriers stop nearby.	Closest site to BART, ferry, and Muni Metro stations.	Only four local, no regional transit lines nearby.
2.4 Parking Access**	Limited existing parking supply.	Good weekday, best weekend parking supply.	Best weekday, good weekend parking supply.	Limited parking supply.
2.5 Operational Needs	Best private loading opportunity.	Has adjoining alleyways; on-site loading not clear.	Private loading facility easily includable.	Semi-private loading facility includable.
Goal 3. Accommodate Growing Collection				
3.1 Collection Development*	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.
3.2 Worthiness for Donors*	Quality of tradition.	Central Site	Quality setting.	High Identity.
3.3 Specialized Areas	Easily provided.	Easily provided.	Easily provided.	Easily provided.

NEW DE YOUNG MUSEUM SITE RESTUDY
SUMMARY EVALUATION COMMENTS

Goal/Criterion	Golden Gate Park	Transbay Terminal	Mid-Embarcadero	Broadway/Embarcadero
Goal 4. Enhance Museum Experience				
4.1 Exhibit Gallery Size*	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.
4.2 Ambient Light*	Good ambient light; trees at north, morning fog banks.	Good southern exposure; existing and potential surrounding skyscrapers.	Limited direct sunlight in winter; open to east	No building mass nearby; constant direct sunlight.
4.3 Identity/Image**	Historic site; natural setting; diversity of park users; building design limitations.	Diverse urban texture and high vehicular activity; "oasis" and open quality unlikely; embryonic environment.	High visibility from, and outlet to, waterfront; impinging office and residential development.	Opportunity for building mass distinct from surroundings.
4.4 Environs Conflicts*	Highly compatible physical setting; highly incompatible functional setting.	Conflicts with area's basic land uses and transportation function; featureless yet dense urban setting affects appearance and environment.	Quality urban setting; potential conflicts between three adjacent disparate land uses.	Highly compatible use, no serious adverse impact on historic uses.
4.5 Environmental Amenity*	Attractive setting and distinctive park amenities.	Close to variety of San Francisco attractions; traffic adversely impacts function.	Variety of urban amenities; attractive man-made and waterfront setting.	Pleasant tranquil setting; near Jackson Square area and Walton Square Park.
4.6 Entry Area Size	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.
4.7 Museum Store Size	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.
4.8 Museum Cafe Size	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.
4.9 Adjacent Open Space	Sculpture garden can be accommodated; park and open setting ideal for viewing sculpture.	Sculpture garden can be accommodated nearby; noise and glare may be a problem.	Sculpture garden could abut museum in park-like setting; sporadic wind and glare.	Sculpture garden in courtyard; noise and wind at times.

NEW DE YOUNG MUSEUM SITE RESTUDY
SUMMARY EVALUATION COMMENTS

Goal/Criterion	Golden Gate Park	Transbay Terminal	Mid-Embarcadero	Broadway/Embarcadero
Goal 5. Broaden Educational Services				
5.1 Learning Spaces	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.
5.2 Advanced Technology	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.
5.3 Library Size	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.	Program requirements can be met.
Goal 6. Attract Popular Exhibitions				
6.1 Visitor Accommodation*	Anticipated to decline.	Substantial increase.	Substantial increase.	Moderate increase.
6.2 Environs Synergy*	Related to clustered public facilities; highly compatible natural physical setting.	Limited current synergy; planned cultural complex/corridor.	Synergistic presence with related attractions and visitor-serving uses.	Synergy poor; removed from urban downtown activities.

NEW DE YOUNG MUSEUM SITE RESTUDY
SUMMARY EVALUATION COMMENTS

Goal/Criterion	Golden Gate Park	Transbay Terminal	Mid-Embarcadero	Broadway/Embarcadero
Goal 7. Maintain Museum Finances				
7.1 Locational Efficiency	Administrative and curatorial activities combined; distant from city core business.	Administrative and curatorial activities combined; Legion of Honor distant.	Administrative and curatorial activities combined; Legion of Honor distant.	Administrative and curatorial activities combined; Legion of Honor distant.
7.2 Museum Revenues***	Very limited hotel supply nearby; declining revenue from residents.	Most hotel rooms within 1-mile radius; resident admissions high.	Good supply of nearby hotel rooms; resident access excellent.	Moderate accessibility to hotel rooms and local access.
7.3 Rental Revenues*	Convention Center distance lessens attraction.	Traffic and environment reduces appeal, offset in part by Convention Center proximity.	Access and setting increase rates and revenue.	Waterfront setting increases festive quality.
Goal 8. Support San Francisco				
8.1 Compatible Surroundings**	Highly compatible physical setting; increasingly incompatible functional setting.	Poor compatibility with uses and form; future station proposal is obstacle; cultural concentration uncertain.	High admixture of uses; area's pervasive dynamism fosters accommodation.	Highly compatible use and form.
8.2 Consistency with City Programs*	Intensification of nearby residential uses undesirable; purported harmful effects on recreation.	Museum consistent with plan would galvanize area and jump-start revitalization.	Link along waterfront, bridge connecting projects; frame for Ferry Plaza.	Site neutral in effect; impedes Port revenue goals for site.
8.3 Consistency with Public Plans*	New Golden Gate Park Plan and EIR rejects museum's symbiosis.	City, downtown, and Transbay plans accommodate cultural activity; CalTrain extension doesn't.	Open space until public use is identified.	Use, height, and scale consistent with policy.
8.4 Public Economic Enhancement*	Negligible effect.	$40K annual increase in Muni revenues; art center catalyst.	$40K annual increase in Muni revenues; sales increase at Embarcadero Center.	$40K annual increase in Muni revenues; occupies possible hotel or commercial site.

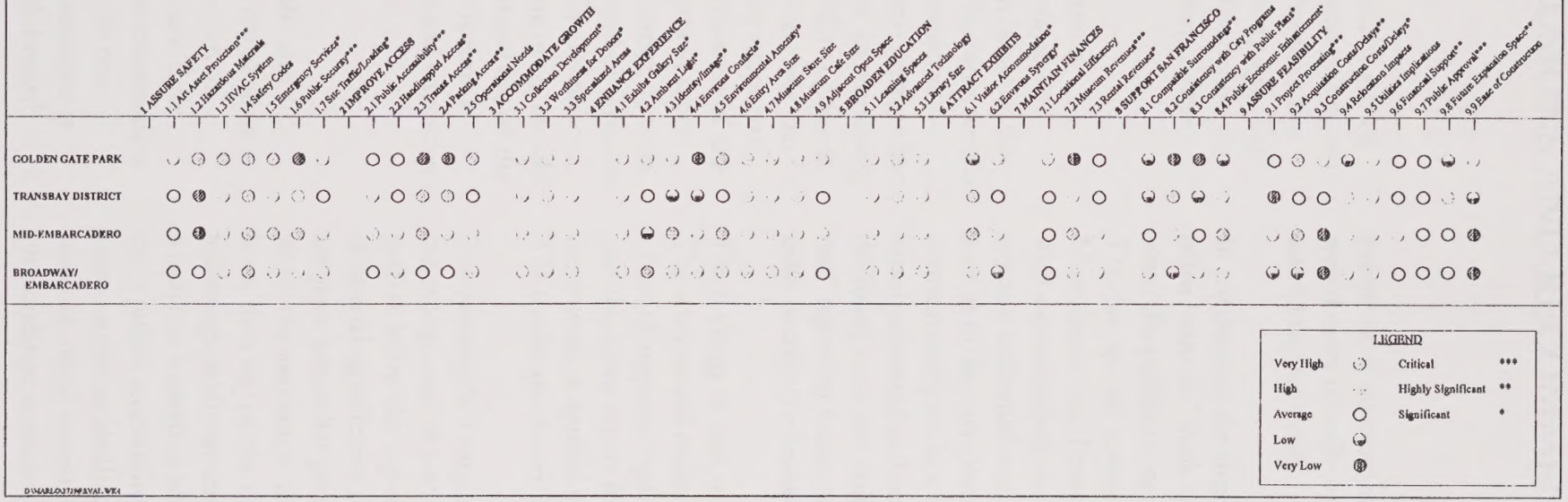
NEW DE YOUNG MUSEUM SITE RESTUDY
SUMMARY EVALUATION COMMENTS

Goal/Criterion	Golden Gate Park	Transbay Terminal	Mid-Embarcadero	Broadway/Embarcadero
Goal 9. Assure Project Feasibility				
9.1 Project Processing***	New building or slight move eastward could trigger complex process; Art, Rec. and Park, Planning Commissions must approve design; need EIR.	May defy emerging Peninsula Joint Powers Board policy; need Caltrans, Planning Commission, and Board of Supervisors approvals.	Redevelopment could gain jurisdiction; otherwise, city-owned land needs standard approvals; might use ongoing EIR.	Port Commission key to approval; historic district may involve Landmarks Board.
9.2 Acquisition Costs/Delay**	Current site; no cost of acquisition.	Estimates are highly speculative and dependent on political decisions; best case cost is zero, worst case is $20.6 million.	City-owned or ownership transfer in process; no cost of acquisition.	Purchases and ground lease involved; ABC building expensive; tenant relocation costs involved.
9.3 Construction Costs/Delay*	Least complex if Asian Art Museum move is timely.	With rail station: after station is built, up to six months for asbestos abatement, demolition, and removal of contaminated soil; without rail station: up to eight months.	Up to six months additional for cross lot bracing and removal of contaminated soil, plus normal construction.	Up to eight months added for asbestos abatement, building demolition, cross lot bracing, and removal of contaminated soil.
9.4 Relocation Impacts	Two moves plus storage; temporary transitional transfer to Asian Art Museum possible.	Standard move.	Standard move.	Standard move.

NEW DE YOUNG MUSEUM SITE RESTUDY
SUMMARY EVALUATION COMMENTS

Goal/Criterion	Golden Gate Park	Transbay Terminal	Mid-Embarcadero	Broadway/Embarcadero
Goal 9. Assure Project Feasibility (continued)				
9.5 Utilities Implications	Adequate existing services; liquefaction risk to off-site services.	Adequate services and nearby steam; liquefaction risk; potential relocations.	Adequate services and nearby steam; liquefaction risk; potential relocations; abandoned pump station.	Adequate services; liquefaction risk; potential relocations.
9.6 Financial Support**	Limited potential financial support, except possibly certificates of participation.	Potential for certificates of participation.	Potential for tax-increment financing or certificates of participation.	Limited potential for revenue bonds through the Port, or certificates of participation.
9.7 Public Approval***	Voter approval conjectural.	Voter approval conjectural.	Voter approval conjectural. Tax increments may require redevelopment area inclusion.	Voter approval conjectural.
9.8 Future Expansion Space**	No expansion possible.	Good expansion possibilities.	Average expansion possibilities.	Lands on seawall parcel to the north could be used for parking; other outparcels may become available.
9.9 Ease of Construction	Good site to build on with well drained soil, direct truck access, open cut excavation, and low water table.	Fair site to build on, with contaminated soil, thin layer of bay mud, downtown restrictions on deliveries and noise.	Difficult site to build on with contaminated soil, thick layer of bay mud, downtown restrictions on deliveries and noise, cross lot bracing, and high water table.	Difficult site to build on with contaminated soil, thick layer of bay mud, downtown restrictions on deliveries and noise, cross lot bracing, and high water table.

NEW DE YOUNG MUSEUM SITE RESTUDY
SUMMARY OF QUALITY RATINGS BY CRITERIA



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VIII. CONCLUSIONS AND RECOMMENDATION

The Golden Gate Park site, a passive setting offering visitors a retreat into nature along with a museum visit, is the historic home of the museum since its creation a century ago. This tradition has had a powerful influence on the perceptions of a public considering a new museum site.

The building housing the museum is structurally unsound and has been altered several times. More importantly, however, the park museum site suffers from the most serious of all drawbacks for any major museum — waning attendance. This is directly attributable to poor access, with prospects of its worsening decline. Most city officials are fully cognizant of this and eager to have a first-rate fine arts museum. Hence, they have largely supported efforts at leaving the park. The trustees of the museum are responsible for improved access under a provision of the City Charter, Section 5.105, which states that "the Board of Trustees of the Fine Arts Museums of San Francisco shall assure that the Museums are open, *accessible* and vital contributors to the cultural life of the City and County, and that the Museum's programs bring art appreciation and education to *all of the people* of the City and County" (emphasis added).

The de Young Museum is literally and figuratively at a crossroads. In a literal sense, it is tied immutably to the intersection of Kennedy and Tea Garden drives and their parking. In a figurative sense, the crossroads is different but just as challenging. In one direction, there may be modest attempts at increasing transit access, but with limited prospects of success. In the other, the museum would move into the new millennium with a much brighter future.

In confronting the future of museums, a plea is often heard to "think outside the box," i.e., avoid the pitfalls of conventional approaches. This has special meaning for the Fine Arts Museums of San Francisco. It is now saddled with a conventional museum building box which is deformed and ultimately unsafe. It is also, as of the last election, consigned to a conventional park box where it is to some extent unwanted and unreachable. Hence, the de Young must not only "think outside the box" regarding future programs, it must also move outside the boxes in which it now resides.

The findings of this study fully confirm this. The analysis and evaluations were conducted by a host of impartial specialists, each of whom gave their own expert independent ratings to the criteria, as applied to the four finalist sites. The results are shown on the following tables.

The existing de Young Museum came in last in the ratings, and by a wide margin — about 20 percent below the top-rated site. The criteria of special significance ("supercriteria") which are given somewhat greater weight, and in which the museum in the park scored notably lower than any of the other sites, were the following: public security (the police subarea in which it is located is among the worst in the city); public accessibility; transit access; parking access; environs conflicts; visitorship; museum revenues; rental revenues; compatibility with surroundings; consistency with city programs

NEW DE YOUNG MUSEUM SITE RESTUDY
SUMMARY OF WEIGHTED POINT RATINGS BY GOAL AND TOTAL SCORES

	1. ASSURE SAFETY	2. IMPROVE ACCESS	3. ACCOMMODATE GROWING COLLECTION	4. ENHANCE MUSEUM EXPERIENCE	5. BROADEN EDUCATIONAL SERVICES	6. ATTRACT POPULAR EXHIBITIONS	7. MAINTAIN MUSEUM FINANCES	8. SUPPORT SAN FRANCISCO	9. ASSURE PROJECT FEASIBILITY	TOTAL SCORES	RANK ORER
Golden Gate Park	67	37	36	85	12	18	19	18	92	**384**	**4**
Transbay District	66	82	36	59	12	24	36	31	74	**420**	**3**
Mid-Embarcadero	78	72	36	71	12	27	45	40	95	**476**	**1**
Broadway/Embarcadero	71	55	36	82	12	18	38	42	69	**423**	**2**

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and plans; ability to enhance the public economy; problems in approval processing of the project; museum relocation costs and delay; and future expansion. It ranked highest in HVAC (fresher air reduces cost); operational needs (closer to the Legion, which is also a drawback); adjacent open space; and ease of construction.

The Transbay District was the subject of a special study in which almost a dozen options were devised. These were first narrowed to two, one involving the Transbay Terminal block itself bounded by Mission, Howard, First and Fremont called Fremont Square, and the other the block to the west, called Natoma Green in the Transbay Concept Plan. It was determined that the Natoma Green block, bounded largely by private lands, would confine and isolate the museum in the middle of the block, with high vulnerability to the development surrounding it. For this reason, the focus of analysis was placed on the Transbay Terminal block.

The Transbay Area functions as a major transportation service entry into the city. The dominant feature of the site at present is its bracketing traffic, including most importantly afternoon outbound traffic on First Street. This can reach bottleneck levels in number of autos seeking access to the Bay Bridge along a street not originally designed to accommodate the traffic previously accommodated by several viaducts. The Transbay plan prepared by the city conveys the district's image as a new frontier, embryonic and malleable, and dominated by a mixture of uses. This diverse, diffuse and amorphous area includes a potential for an exciting extension of a cultural or arts district, but the vision of an east-west arts corridor remains ill-defined.

This area scored approximately 13 percent lower than the highest rated site, and came in third, although by less than three percent over the second ranked site, among the four sites. Among the criteria in which it scored notably lower than any of the others were the following: site/traffic loading, operational needs, identity/image, environmental amenity, and project processing.

Some of these low ratings are attributable to the locational conflict with the proposed CalTrain Extension and to the continuing state ownership of the land. There is no question that were the city to reject the extension from Fourth and Townsend streets, the extension would become infeasible and probably would also be rejected by the Joint Powers Board (which would likely not wish to impose its views on a neighboring jurisdiction). Moreover, just as with freeways, the cooperation of the local government in which the project is located is essential. Were a decision made rejecting the extension, there still would be a negative public reaction to constructing a museum which foreclosed for all time future consideration of this project. This could affect a special gift or legislation transferring title to the land. All of the means for coexistence with the underground station have been explored. However, the timing and cost/financing uncertainty eliminates any near-term joint configuration. It is also impossible to predict the timing of a transfer of title to the land.

The Broadway/Embarcadero site is located in a largely low-scale, open, somewhat remote and poorly identifiable site, which, however, benefits from significant waterfront exposure. It is also the gateway to the Broadway corridor, which may soon be a focus for the city in removing the tawdry uses along Upper Broadway, just before Columbus Avenue. Hence, a transition could be made from a cultural to an entertainment center, a logical nexus. The Port

Authority has a major interest in the area and jurisdiction over several of the seawall lots which partially constitute the site. Although its plans for the area remain indefinite, it has traditionally viewed this area as a major development opportunity on the landward side of the Embarcadero. Hence, it remains questionable whether its approval of the museum on the site would be easy to secure.

The criteria which have a notable impact on the lowering of ratings for this site include the following sole lowest ratings: synergy with environs uses, and acquisition costs and delay due to internal private ownerships. It is highest in ambient light, consistency with public plans, and compatibility with surroundings. This site is similar to the Transbay District in overall rating, being less than three percent higher than that site's rating.

The highest rated site is the Mid-Embarcadero site. The site is near the heart of Downtown in a setting which acts in a sense as a grand "foyer" for the city. It abuts a major transportation gateway, with increasing ferry access, a BART station, the Muni F Line, and the Muni LRT. Because it is directly adjacent to the Ferry Building, the major public access area to the Bay, it shares that cherished building's exposure and resulting patronage, also having the advantage of adjacent employment centers at the Embarcadero Center, Market Street and the eastern end of the Financial District. A museum would be among a host of highly diverse uses at the confluence of recreational, office, retail, residential, entertainment and civic facilities.

The site is sole highest in emergency services, public security, public economic enhancement, project processing, and financial support. It shares the highest rating for 19 other criteria. It has the sole lowest rating for only one criterion: ambient light. This site ranks nine percent higher than the second ranked site and 21 percent higher than the bottom-ranked site.

Because of its substantial favorability over the other sites, the Mid-Embarcadero site is recommended as the most desirable site for the new de Young Museum.

M.H. deYoung Memorial Museum
Site Selection Study

APPENDICES

Prepared for The Fine Arts Museums of San Francisco
by Sedway Consulting, ROMA Design Group and Associated Consultants
June 1997

M.H. deYoung Memorial Museum
Site Selection Study

APPENDICES

Prepared for
The Fine Arts Museums of San Francisco

by
Sedway Consulting

in association with
ROMA Design Group, Rutherford & Chekene
Sedway Group, Swinerton & Walberg, Wilber Smith Associates

June 1997

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APPENDIX A

De Young Museum Urban Building and Pavilion Concept Model Programs

Urban Building Concept Vertical Plan of 1 Basement & 4 Levels Footprint Area 60,000 s.f. Gross Building Area 250,000 s.f.	
Level 4 **41,875 s.f. gross**	American & 20th Century Galleries 26,000 sf Flexible Exhibition Space 3,000 sf Event Area 3,000 sf Restrooms 1,000 sf Storage 500 sf
Level 3 **43,875 s.f. gross**	Africa, Oceania & Americas 10,000 sf Textiles 5,000 sf Achenbach 1,000 sf Flexible Exhibition Space 3,000 sf Collection Study Areas 4,000 sf General Administration 11,600 sf Storage 500 sf
Level 2 **45,500 s.f. gross**	Temporary Exhibition Galleries 12,000 sf Conservation Labs 9,000 sf Registration 1,000 sf Curatorial Offices 3,000 sf Library 8,000 sf Teachers' Resource Center 1,000 sf Volunteers, Docents, Membership 1,900 sf Storage 500 sf
Level 1 **52,750 s.f. gross**	Entry & Information 4,000 sf Orientation Galleries 1,500 sf Coatcheck & Restrooms 3,000 sf Classrooms & Studios 3,000 sf Childrens' Gallery 1,000 sf Auditorium 4,000 sf Education Offices 600 sf Event Area 4,000 sf Restaurant & Food Service 5,500 sf Event Services & Storage 2,000 sf Museum Store 4,100 sf Loading Dock & Security 5,000 sf Storage 500 sf
Basement Level 62,375 s.f. gross	Exhibition Preparation 10,000 sf Art Storage 15,000 sf Engineering & Custodial 2,900 sf Mechanical 20,000 sf Plant Storage 2,000 sf

Museum Functions	Program Area/s.f.	Basement Level	Level 1	Level 2	Level 3	Level 4
Galleries						
Temporary Exhibition	12,000			12,000		
American & 20th Century	26,000					26,000
Africa, Oceania, America	10,000				10,000	
Textiles	5,000				5,000	
Achenbach	1,000				1,000	
Flexible Exhibition	6,000				3,000	3,000
Totals	60,000	0	0	12,000	19,000	29000
Collection Support						
Conservation Labs	9,000			9,000		
Exhibition Preparation	10,000	10,000				
Registration	3,000		2,000	1,000		
Curatorial	3,000			3,000		
Art Storage	15,000	15,000				
Totals	40,000	25,000	2000	13,000	0	0
Education						
Classrooms & Studios	3,000		3,000			
Children's Gallery	1,000		1,000			
Auditorium	4,000		4,000			
Teacher's Resource Cntr	1,000			1,000		
Collection Study Areas	4,000				4,000	
Library	8,000			8,000		
Totals	21,000	0	8,000	9000	4000	0
Public Services						
Entry & Orientation						
Entry, Tickets & Info	6,000		4,000			
Orientation Galleries	1,500		1,500			
Public Areas General						
Coat Check/Restrooms	4,000		3,000			1,000
Event Areas	7,500		4,000			3000
Restaurant/Food Serv.	5,500		5,500			
Event Services/Storage	2,000		2,000			
Museum Store	4,100		4,100			
Totals	26,500	0	24,100	0	0	4,000

Museum Functions	Program Area/s.f.	Basement Level	Level 1	Level 2	Level 3	Level 4
Public Services Support						
Volunteers	550			550		
Docents	550			550		
Membership	500			500		
Storage	300			300		
Totals	1,900	0	0	1,900	0	0
General Administration						
General Administration	6,200				6,200	
Development	1,500				1,500	
Members/P.R./Pub.	2,400				2,400	
Education	600		600			
Operations	1,500				1,500	
Storage	2,000		2,000			
Totals	14,200	0	2,600	0	11,600	0
Engineering & Plant						
Loading Dock & Security	5,000		5,000			
Engineering & Custodial	2,900	2,900				
Mechanical	20,000	20,000				
Plant Storage	4,000	2,000	500	500	500	500
Totals	31,900	24,900	5,500	500	500	500
Summary						
Total Net Square Feet	199,600	49,900	42,200	36,400	35,100	33,500
x25% circulation, etc.	49,900	12,475	10,550	9,100	8,775	8,375
Total Program Area	249,500	62,375	52,750	45,500	43,875	41,875

de Young Museum
Pavilion Concept Model
150,000 s.f. Footprint

Special Exhibition Pavilion 42,625 sf gross area Min. Footprint 21,320 sf 2 levels above grade	Collection Pavilion American & 20th Cen. 42,500 sf gross area Min. Footprint 42,500 1 level above grade	Collection Pavilion AOA & Textiles 27,500 sf gross area Min. Footprint 27,500 sf 1 level above grade	Administration Pavilion 38,375 sf gross area Min. Footprint 6,400 sf 6 levels above grade	Total Gross Area	Total Pavilions' Footprint
				151,000 sf	97,720 sf

			Administration 14,200 sf		
			Curatorial 3,000 sf		
Entry & Orientation 5,000 sf			Library 8,000 sf		
Special Exhibitions 12,000 sf			Teachers Res 1,000 sf		
Restaurant/Events 10,500 sf			Classroom 500 sf		52,280 sf
Store 4,100 sf	Entry 3,000 sf	Entry 3,000 sf	Entry/Restrooms 1,000 sf		Courtyards
Children's Gallery 1,000 sf	Galleries 30,000 sf	Galleries 18,000 sf	Registration 1,000 sf		Sculpture Garden
Restrms/Coats 1,500 sf	Restrms/Coats 1,000 sf	Restrms/Coats 1,000 sf	Conservation 2,000 sf		& Expansion Area

GRADE

Below Grade	Auditorium 4,000 sf	Art Storage 15,000 sf	Classrooms 2,500 sf	Registration 2,000 sf	Basement Level 1
	Restrooms/Coats 1,000 sf	Exhibit Prep 10,000 sf	Collection Study 4,000 sf	Loading & Sec. 5,000 sf	Loading & Parking Access
	Events 2,500 sf	Conservation 7,000 sf	Public Serv. 1,900 sf	Engineering 26,900 sf	45250 sf
	Event Services 2,000 sf		Basement Program Area 104,750 sf (gross)		includes 75 cars
		Parking 150,000 s.f.	425 cars		Level 2
		Parking 150,000 s.f.	425 cars		Level 3

Total Museum Program	255,750
Parking & Loading Access	45,250
Total Parking Program	300,000
Total Building Area	601,000

Museum Functions	Program Area/s.f.	Basement Level	Pavilion 1 Sp. Exhibits	Pavilion 2 Collections	Pavilion 3 Collections	Pavilion 4 Admin.	Program Variance
Galleries							
Temporary Exhibition	12,000		12,000				
American & 20th Century	26,000			26,000			
Africa, Oceania, Americas	10,000				10,000		
Textiles	5,000				5,000		
Achenbach	1,000			1,000			
Flexible Exhibition	6,000			3,000	3,000		
Totals	60,000	0	12,000	30,000	18,000	0	0
Collection Support							
Conservation Labs	9,000	7,000				2,000	
Exhibition Preparation	10,000	10,000					
Registration	3,000	2,000				1,000	
Curatorial	3,000					3,000	
Art Storage	15,000	15,000					
Totals	40,000	34,000	0	0	0	6,000	0
Education							
Classrooms & Studios	3,000	2,500				500	
Children's Gallery	1,000		1,000				
Auditorium	4,000	4,000					
Teacher's Resource Cntr	1,000					1,000	
Collection Study Areas	4,000	4,000					
Library	8,000					8,000	
Totals	21,000	10,500	1,000	0	0	9,500	0
Public Services							
Entry & Orientation							
Entry, Tickets & Info	6,000		4,000	2,500	2,500	500	3,500
Orientation Galleries	1,500		1,000	500	500		500
Public Areas General							
Coat Check/Restrooms	4,000	1,000	1,500	1,000	1,000	500	1,000
Event Areas	7,500	2,500	5,000				0
Restaurant/Food Serv.	5,500		5,500				0
Event Services/Storage	2,000	2,000					0
Museum Store	4,100		4,100				0
Totals	30,600	5,500	21,100	4,000	4,000	1,000	5,000

de Young Museum
Program for Pavilion Concept Model

4/2/97

Museum Functions	Program Area/s.f.	Basement Level	Pavilion 1 Sp. Exhibits	Pavilion 2 Collections	Pavilion 3 Collections	Pavilion 4 Admin.	Program Variance
Public Services Support							
Volunteers	550	550					
Docents	550	550					
Membership	500	500					
Storage	300	300					
Totals	1,900	1,900	0	0	0	0	0
General Administration							
General Administration	6,200					6,200	
Development	1,500					1,500	
Members/P.R./Pub.	2,400					2,400	
Education	600					600	
Operations	1,500					1,500	
Storage	2,000					2,000	
Totals	14,200	0	0	0	0	14,200	0
Engineering & Plant							
Loading Dock & Security	5,000	5,000					
Engineering & Custodial	2,900	2,900					
Mechanical	20,000	20,000					
Plant Storage	4,000	4,000					
Totals	31,900	31,900	0	0	0	0	0
Summary							
Total Net Square Feet	199,600	83,800	34,100	34,000	22,000	30,700	5,000
x25% circulation, etc.	49,900	20,950	8,525	8,500	5,500	7,675	1,250
Total Program Area	249,500	104,750	42,625	42,500	27,500	38,375	6,250

APPENDIX B

Seismic, Structural and Civil Engineering Evaluations

Prepared by Rutherford and Chekene

DE YOUNG MUSEUM SITE RESTUDY

Criterion 1.1: Potential of Site/Building for Safety and Seismic Stability of Asset Protection Level

Technical Memorandum

General (All Sites)

For the purposes of this study we have assumed that the basic seismic performance goals of the New de Young Museum, expressed in terms of limits on damage/loss of their collection, are described as follows:

- In a "Moderate" earthquake of Modified Mercali Intensity (MMI) VI, similar to a repeat of the ground shaking of the Loma Prieta Earthquake experienced at sites in San Francisco, **the goal is to suffer no loss in collection value.**

- In a "Major" earthquake of MMI VII-VIII, similar to the ground shaking expected from a Magnitude 7 earthquake on the mid-peninsula segment of the San Andreas fault or one of the East Bay faults (closest point of fault rupture ±12 miles from the site), **the goal is to suffer no loss in collection value.**

- In a "Great" earthquake of MMI IX+, intended to represent a repeat of the 1906 San Francisco earthquake on the Northern California segment of the San Andreas fault (closest point of fault rupture ± 5 miles from the site), **the goal is to have no loss of collection value in storage and a loss of less than 1% of collection value on display.**

These goals have been established with the intent to provide the highest level of seismic safety for the collection. In order to achieve these goals at any site in San Francisco, museum buildings housing the collection must provide a very high level of seismic performance.

Special, performance-based seismic design criteria, exceeding normal building code provisions, will be required and will affect the design of all major building systems (structural, architectural, mechanical/climate control, electrical, fire protection, etc.). Proper implementation of this type of multi-level performance-based design will entail considerably greater effort by the design than would be required by typical, Code-based

design, requiring higher than normal design team fees (refer to Criteria 9.1). In addition, the Department of Building Inspection will convene a Seismic Advisory Committee, to perform peer review of the building's design (refer to Criteria 9.1).

The structural lateral force resisting system for the new museum building(s) must be very strong, very stiff, very ductile, and highly redundant; basic properties which can be achieved with conventional concrete shear wall and steel diagonal braced frame systems. However, the potential use of some form of structural building response modification, such as installation of supplemental damping devices or seismic isolator bearings, should be considered at all sites. In addition, building configuration irregularities, in particular vertical discontinuities in the primary lateral force resisting system, should be avoided. Thus, upper level setbacks must be compatible with the vertical elements of the structural framing system. There are no conditions at any of four sites being studied which preclude construction of appropriate structural lateral force resisting systems.

A complete program of conventional supplemental art object protection measures should be installed for all pieces vulnerable to seismic shaking. These measures should provide reliable seismic performance for artwork stored in the basement and displayed on the ground floor level. However, the performance of conventional art object protection systems may be somewhat uncertain at the second floor level, and unreliable at higher building levels, due to the amplification of seismic response (floor accelerations and shaking) expected. If seismically vulnerable artwork will be displayed on the second floor, more sophisticated (hi-tech) art object protection measures could be employed for significant pieces, to provide greater assurance of achievement of the desired level of seismic protection. If vulnerable artwork will be displayed or stored on higher floor levels in a mid-rise, urban building, use of seismic isolation and/or supplemental damping systems will very likely be required.

Golden Gate Park Site *(From 12/95 Site Selection Study with minor editing)*

Site Conditions: The proposed site is presently occupied by the current M.H. de Young and Asian Art Museums. Existing underground construction includes foundation and utility structures connected with the existing museum buildings, the basement level of the Asian Art Museum, and the drilled piers installed as part of the temporary seismic bracing of the existing buildings housing the M. H. de Young Museum.

The generalized soil profile consists of approximately five to ten feet of medium dense silty sand with brick fragments and other debris in some locations. This material is believed to have been placed artificially. The artificially placed material is underlain by loose to dense

poorly graded sand. Bedrock is estimated to be at a depth between 150 and 200 feet. Based on these soil conditions, the site has a UBC soil profile classification of S1. Groundwater was not encountered to a depth of exploration of about 40 feet. Based on preliminary information, the potential for encountering hazardous materials on this site is low.

The site is located outside the Alquist-Priolo Special Studies Zone, implying that the potential for ground rupture due to fault displacement is low. In keeping with the seismicity of the region, very strong ground shaking should be expected during a major earthquake. The nearest expected source of such an earthquake is the San Andreas fault, located some 5 miles to the southwest of the site. Because of the proximity of the fault, an earthquake centered on the fault can be expected to produce near-field groundmotion effects on the site.

The site has a high potential for experiencing compaction settlement in the event of a major earthquake because of the presence of a loose to medium dense sands in upper (10-15 feet) layers.

Seismic Performance/Stability: The proposed building can be supported on spread footings bearing in dense sand below the basement levels. At portions of the building without basements, where foundations are bearing on less dense sands, interconnected grade beams may be required between the individual footings. The footings may have to be formed because of the high potential for footing excavation to cave. At areas where construction of one or two level basements occurs, all the upper soil layers susceptible to compaction settlement would be removed, thereby eliminating the potential for this hazard. However, pavements, utility services and other surface construction adjacent to the building may still be affected. Excavation for the footings, the basements, and the tunnel leading to the basement can be performed with conventional excavation equipment and conventional shoring can be used to support the excavation walls. Construction of the tunnel will impact traffic and utilities in the area.

This site poses no significant restrictions or constraints to the construction of the building's superstructure. The building may be either a reinforced concrete or steel framed structure. The only significant structural concern posed by this site is the very strong to severe level of seismic ground shaking expected in a major earthquake. Assuming the new museum will likely be a two story building, the following ranges of horizontal accelerations can be expected: 0.4-0.6g at the first (ground) floor level, 0.9-1.0g at the second floor level, and 1.4-1.5g at the third floor/roof level. In addition, the near-field effects expected at this site could include significant impulsive loading. Structural response modification, perhaps

using a combination of seismic isolation and supplementary damping devises, should be considered.

Fremont Square (Transbay) Site *(from SMWM Study with minor editing)*

Site Conditions: For discussion of site conditions, suitable foundation systems, and excavation/shoring conditions, refer to the Preliminary Geotechnical Evaluation dated 4/23/97 prepared by Treadwell & Rollo. In addition, ground level floor slabs in buildings without basements must be designed as suspended floors (instead of slabs on ground) to span over pockets of softer soils or areas which may experience densification and/or consolidation settlements during an earthquake. This condition most likely applies to basement level slabs as well. All basement walls and floors will need to be adequately waterproofed.

CalTrain Extension: The below ground terminal for the potential CalTrain extension project occurs on this site. Museum construction may occur over the footprint of the station, provided that the station structure is designed to accommodate the superimposed building loads and is constructed before the museum buildings overhead. In this event, the following issues must be considered:

- Since it is unlikely that the column grid for the museum buildings will fit with the platform and track layout of the station below, the roof of the station will need to be designed to transfer museum column loads to the station column grid and foundations. Also, cost-sharing for this structural transfer system will need to be addressed.

- Unless the station is constructed considerably deeper than is currently proposed, buildings over the station will not have basements. In addition, below ground tunnels linking separate buildings will be interrupted by the station box.

- Monolithic concrete structures are very good conductors of both noise and vibrations. Since trains will be traveling at very slow speeds in the terminal, vibrations associated with moving trains will not be an issue. However, vibrations caused by idling or revving locomotive engines and noises from various sources (engines and people) will require some form of mitigation. Mitigation measures may include one or more of the following: extensive sound insulation, isolation mounts for the tracks in the station, vibration isolation of the museum floor directly over the station, or isolation of the museum structure from the supporting station structure.

- Special measures will be required to protect museum buildings, especially gallery, exhibition, and other public spaces, from the however unlikely event of fire and/or explosion in the train station below.

Adaptive Re-use of Existing and/or Historic Buildings: Re-use of existing buildings on this site will almost certainly require their seismic upgrade and will probably require underpinning during construction of adjacent basement construction. Furthermore, re-use for most museum functions will likely involve a change of occupancy, which may trigger seismic and/or other strengthening, even if an upgrade (say to comply with the current Unreinforced Masonry Building (UMB) Ordinance) has already been done. Also, even an upgraded UMB will not be an appropriate structure to house any of the museum's collection. Finally, existing floor levels will almost certainly not match new museum floor-to-floor levels, requiring ramps or some other type of floor level reconciliation.

Seismic Performance/Stability: There are no constraints, other than those noted above, affecting the construction of the proposed above ground structures on this site. The only significant structural concern is the strong level of seismic ground motion which is expected to occur at the site in a major earthquake. In such an event, the horizontal ground motion accelerations expected at this site are in the range of 0.35-0.6g. In a conventional building structure, horizontal accelerations are expected to exceed 1.0g at the third floor level and above.

In order to assure achievement of the desired level of seismic protection for the collection, either the higher floor levels should not be used for art storage and display, or some form of structural building response modification, such as installation of supplemental damping devices or seismic isolator bearings at the ground level, may be required. Installation of either is feasible at this site, including at structures located above an underground train station.

Mid-Embarcadero (Blocks 202-203) Site *(from 12/95 Site Selection Study with editing)*

Site Conditions: The proposed site is presently covered by landscaping and a few minor site structures. On- and off-ramps of the demolished Embarcadero Freeway terminated on the site. A post office annex building, since demolished, was once located on the north side of the site. Existing underground construction includes, abandoned piles, pile caps, and abutments of the demolished freeway ramp structures and the abandoned foundations of the old post office building.

Based on Caltrans borings from the Embarcadero freeway alignment, the generalized soil profile consists of approximately 15- to 20-foot thick loose to medium dense fill overlying

approximately 40- to 60-foot thick Bay Mud. These layers are underlain by alluvial soils consisting of loose to dense sands and clayey sands, and very stiff sandy clay and clayey silt. Bedrock is estimated to be at a depth of at least 170 feet. Based on these soil conditions, the site has a UBC soil profile classification of S4. Groundwater is estimated to be at a depth of between 10-15 feet. Based on preliminary information, the fill has a high potential of containing regulated (contaminated) materials.

The site is located outside the Alquist-Priolo Special Studies Zone, implying that the potential for ground rupture due to fault displacement is low. In keeping with the seismicity of the region, strong ground shaking should be expected during a major earthquake. The nearest expected source of such an earthquake is the San Andreas fault, located some 8.5 miles to the southwest of the site. Although an earthquake centered on the fault will not produce near-field groundmotion on the site, the groundmotion is expected to be high.

The potential for compaction settlement and liquefaction of the fill material, in the event of a major earthquake, is high because of the presence of the loose to medium dense sands in the upper layers.

On this waterfront site, the potential of archaelogical discoveries cannot be discounted, and their impact on the project must be considered.

Seismic Performance/Stability: The proposed buildings can be supported on precast, prestressed concrete piles bearing in dense sands below the layer of Bay Mud. Pile driving would be impacted by potential obstructions such as abandoned piles and rubble in the fill layer. Piles can be driven after full or partial excavation of the basement. If the basement is excavated partially, a follower will be needed to drive the top of pile below grade. If the basement is fully excavated, groundwater will impact the driving operations. Groundwater will also impact basement construction as discussed below.

Because of the proposed basement construction, most of the upper soil layers susceptible to compaction settlement and liquefaction would be removed thereby minimizing the potential for these hazards to affect the lateral capacity of the piles. These hazards, however, are likely to impact flatwork and utilities around the building. Flexible connections will be required where utilities enter the building. The cost of excavation should include the cost of disposal of contaminated fill materials.

Excavation for the basement can be performed with conventional excavation equipment. Sheet piling, extending 15 feet or more below the bottom of the excavation, may be

required to minimize the impact of groundwater and Bay Mud on the stability of the excavation. Dewatering with wellpoints is not an option on this site because of the potential impact of such dewatering on settlement of adjacent improvements. Tiebacks cannot be used to provide lateral stability for shoring; the excavation would have to be braced. Slurry wall construction, in lieu of sheet piling, could be used for temporary and permanent support of the excavation. Basement walls will need to be adequately waterproofed.

Use of the Soil Mixed Wall (SMW) technique, may provide a more economical approach to temporary support of the basement excavation. In this approach, a series of interconnected, large diameter (±5') piers or caissons of cemented soils is placed by a drilling process, around the perimeter of the excavation, to a depth of about 15-20 below the bottom of excavation. Then, the piles are driven from existing grade with followers. Stability of the bottom of the excavation is provided by jet-grouting a waste mat slab at the desired depth inside of the perimeter wall. When the soils are excavated, the soil mixed wall provide temporary support by cantilevering vertically above the jet-grouted waste slab (each caisson may be reinforced by installing a steel wide flange section if required at deeper excavations).

There are no constraints, other than possible height limits, affecting the construction of the proposed above ground structures on this site. The building may be either a reinforced concrete or steel framed structure. The only significant structural concerns are the strong level of seismic ground motion which is expected to occur at the site in a major earthquake and the possibility that the museum buildings may need to be mid-rise due to the relatively small site footprint available. The following ranges of horizontal accelerations can be expected: 0.35-0.55g at the first (ground) floor level, 0.75-0.9g at the second floor level, and greater than 1.25g at the third floor and higher levels. If the new museum building is taller than two stories, either the higher levels should not be used for art storage or display, or structural response modification (isolation and/or supplemental damping) should be used. Installation of either is feasible at this site.

Broadway @ Waterfront Site

Site Conditions: Based on Caltrans borings from the Embarcadero freeway alignment, the generalized soil profile consists of approximately 20- to 30-foot thick loose to dense fill, overlying about 60 feet of Bay Mud, which is in turn underlain by very stiff clay, sandy clay with gravel, and silty clay. Franciscan bedrock is at least 120 feet below ground surface.

The fill on this site largely predates the 1906 earthquake. Therefore, it consists mostly of clean sands. However, some limited amounts of the upper portions of the fill may contain regulated (contaminated) materials.

The Embarcadero Freeway ramp structure traversed this site. Two existing one- and two-story buildings presently exist on the site. Existing underground construction includes the abandoned pile and pile cap foundations from the demolished freeway piers and the timber pile foundations of the existing buildings.

The site is located outside the Alquist-Priolo Special Studies Zone, implying that the potential for ground rupture due to fault displacement is low. In keeping with the seismicity of the region, strong ground shaking should be expected during a major earthquake. The nearest expected source of such an earthquake is the San Andreas fault, located some 8.5 miles to the southwest of the site. Although an earthquake centered on the fault will not produce near field groundmotion on the site, the groundmotion is expected to be high.

The potential for compaction settlement and liquefaction of the fill material, in the event of a major earthquake, is high because of the presence of the loose to medium dense sands in the upper layers.

On this waterfront site, the potential of archaelogical discoveries cannot be discounted, and their impact on the project must be considered.

Seismic Performance/Stability: All comments contained under this same heading for the Mid-Embarcadero site apply to this site as well except that the cost of disposal of contaminated fills will be much lower.

If any of the existing buildings on the site are to remain, their retention will almost certainly require underpinning during construction of adjacent basement construction and the risk of damaging them will be high. Re-use for most museum functions will likely involve a change of occupancy, which may trigger seismic and/or other strengthening, even if an upgrade (say to comply with the current Unreinforced Masonry Building (UMB) Ordinance) has already been done. Also, even an upgraded UMB will not be an appropriate structure to house any of the museum's collection. Finally, existing floor levels will almost certainly not match new museum floor-to-floor levels, requiring ramps or some other type of floor level reconciliation at any interconnections.

Criterion 9.5: Limiting Cost and Delay in Securing Adequate Utilities

Technical Memorandum

General

Utility Investigations: Since there is no single San Francisco agency that maintains drawings of all the existing subsurface utilities in City streets, we visited each of the three downtown sites (we did not investigate the Golden Gate Park site) to seek surface indications of subsurface utilities, such as valves, manholes, hydrants, pullboxes, trench pavement repairs and paint marks. We also contacted the following agencies and companies to request copies of their utility drawings in study areas:

S F Water Department	Domestic Water
S F Dept. of Public Works	Sewers
S F Dept. of Public Works	High Pressure Fire Protection
Pacific Gas & Electric	Gas & Electric
Hetch Hetchy Bureau of Light Heat & Power	Electric
Bell Telephone	Telephone
MCI	Telephone
San Francisco Thermal	Steam

To date, we have received responses only from the San Francisco Water Department and San Francisco Thermal.

Seismic Threat to Off-Site Utilities: There is a risk that off-site utility services, such as the City's domestic water service mains, high pressure fire mains, and any other buried utilities which pass through areas of potential soil liquefaction, could fail in the event of a major earthquake. Failure of off-site utilities could leave the Museum without services essential for protection of the collection, such as a water supply to protect the Museum in the event of a fire following a severe earthquake, for several days to a week. Although all four sites are surrounded by areas subject to liquefaction, the Golden Gate Park site is the least vulnerable and the two waterfront sites are the most vulnerable to this risk. Consideration should be given to providing on-site emergency backup, in excess of code requirements, for any utility services which are deemed essential to protect the collection in a post-earthquake disaster. These may include providing emergency power generation and either on-site water storage or emergency pumping capability to allow use of nearby water sources such as the Bay and Stowe Lake.

Golden Gate Park Site

Utility Services: No specific investigations were made at this site. We assume that the current museum site is served adequately.

Fremont Square (Transbay) Site

Utility Services: The site is well served by utilities, including domestic water, combined sewer, power, communications, and the City's high pressure water fire protection system. In addition, San Francisco Thermal (a private company) has a steam main in Second Street and has expressed an interest in providing service to the Transbay site. Both capital and operating cost savings could probably be realized with steam service.

Utility Relocations: There is a water main, a sewer, and a telephone line in Natoma Street in the Transbay site area. If the Museum's plan for the development of this site includes a basement or tunnel under Natoma Street, consideration will have to be given to relocating these utilities and/or protecting them.

Mid-Embarcadero (Blocks 202-203) Site

Utility Services: The site is well served by utilities, including domestic water, combined sewer, power, communications, and the City's high pressure water fire protection system. Block 203 is also close to some of San Francisco Thermal's lines that possibly could be extended to serve the Museum. Steam service could probably result in both capital and operating cost savings.

Utility Relocations: There are numerous utilities in Drumm Street. Although, the current concept for the Mid-Embarcadero site indicates a bridge spanning over Drumm Street, provision of a tunnel under the street will have an impact on these existing utilities.

We observed many PG&E manholes in the park between Drumm Street and the Embarcadero, indicating the presence of underground power lines and related facilities. These facilities may require relocation depending on the configuration of proposed construction on those portions of the site. It should be noted that the terms of the City's encroachment permits for private utilities usually require the utility to bear the cost of relocation should it prove necessary.

There is an existing sewage pump station at the southwest corner of the intersection of Drumm Street and Washington Street. We have been informed that it is abandoned, so it can be demolished if necessary for the development of the site for the Museum.

Broadway @ Waterfront Site

Utility Services: The site is well served by utilities, including domestic water, combined sewer, power, communications, and the City's high pressure water fire protection system.

Utility Relocations: There is a sewer, a water main, and numerous other utilities in Davis Street. If Davis Street is closed as the current concept indicates, these utilities will have to be relocated and/or protected.

Summary Statements

Criterion 1.1 - Seismic Stability & Asset Protection:

Golden Gate Park: Severe seismic shaking; shallow foundations; conventional excavation support.

Fremont Square: High seismic shaking; deep pile foundations; special excavation support & dewatering; potential CalTrain extension.

Mid-Embarcadero: High seismic shaking; deep pile foundations; special excavation support & dewatering.

Broadway @ Waterfront: High seismic shaking; deep pile foundations; special excavation support & dewatering.

Criterion 9.5 - Utilities:

Golden Gate Park: Adequate existing services; liquefaction risk to off-site services.

Fremont Square: Adequate services and nearby steam; liquefaction risk; potential relocations.

Mid-Embarcadero: Adequate services; liquefaction risk; potential relocations; abandoned pump station.

Broadway @ Waterfront: Adequate services; liquefaction risk; potential relocations.

Judgments

Criterion 1.1 - Seismic Stability & Asset Protection:

Golden Gate Park:	Good
Fremont Square:	Average
Mid-Embarcadero:	Average
Broadway @ Waterfront:	Average

Criterion 9.5 - Utilities:

Golden Gate Park:	Good
Fremont Square:	Good
Mid-Embarcadero:	Good
Broadway @ Waterfront:	Good

APPENDIX C

Planning, Urban Design and Institutional Evaluations

Prepared by Sedway Consulting

INTRODUCTION

The following assessments have been made on criteria determined to be of a planning, urban design or planning implementation character. The judgments have been made on an empirical basis, involving either site observations, data, or other information.

Criterion 1.6: Ability of Site/Building to Assure Optimum Security of Art Collection

Golden Gate Park
Security has been an issue at this site, particularly during nighttime hours, due to the secluded nature of the park. The site is within statistical subarea 757 of the Richmond Police District. According to San Francisco Police Department reports for 1995, this statistical area had 405 reported major offenses, more than double any other subarea in the Richmond Police District. However, Area 757 is one, but not the largest, of the Richmond subareas in terms of land area. (Major offenses include homicide, rape, robbery, assault, burglary, grand theft, motor vehicle theft, purse-snatch, and petty theft.) Out of the 503 subareas in the city, this subarea ranked 8th highest in number of thefts, 16th highest in number of auto thefts, and 19th highest in reported major offenses for 1995. There were no homicides reported.

Summary: Less than optimum security; secluded site.

Transbay Site
Despite its perception as a potentially unsafe location, this site has not experienced particularly high levels of crime. The site is within statistical subarea 226 of the Southern Police District. According to San Francisco Police Department reports for 1995, this statistical area had 165 reported major offenses. Out of 503 subareas throughout the entire city, this subarea ranked 94th highest in the number of auto thefts, 99th highest in thefts, and 107th in the number of reported major offenses for 1995. There were no homicides reported in this subarea during this period.

Summary: Adequate security; highly visible site.

Mid-Embarcadero
The adjacency of the Embarcadero Center and the Golden Gateway should enhance the area's security. This site is within statistical subarea 154 of the Central Police District. The subarea had a reported 187 major offenses for 1995, according to the San Francisco Police Department. Out of 503 subareas throughout the entire city, this subarea ranked 57th highest in the number of thefts, 92nd highest in reported major offenses, and a low 487th in auto thefts for 1995. There were no homicides in this subarea during this period.

Summary: Adequate security enhanced by adjacent sites.

Broadway/Embarcadero
Although somewhat removed from San Francisco's financial district, this site is neighbored by North Waterfront offices, the ABC building, and the Golden Gateway. This site is within statistical subarea 134 of the Central Police District. According to the San Francisco Police Department, the subarea had a reported 120 major offenses for 1995, the fewest of the four potential de Young sites. Out of 503 subareas throughout the entire city, this subarea ranked 114th highest in the number of thefts, 165th in reported major offenses, and 210th in auto thefts for 1995. There were no homicides reported in this subarea during this period.

Summary: Most secure site; somewhat removed from downtown activities.

Criterion 4.2: Adequacy of Ambient Light

Golden Gate Park
The facade of the existing museum faces south, and the front of the museum receives considerable direct sunlight. This direct light is largely blocked by the design of the building, which has few windows facing south. The surrounding trees are behind and to the east of the building, and hence do not provide any blockage of direct sunlight. However, there is a blockage of direct north light to a limited extent, which serves to darken the museum.

Summary: No blockage; trees at north.

Transbay District
The Mission Street frontage facing north has a major building directly to the front. Another skyscraper is to the west at the corner of First and Mission; this will cast afternoon shadows in the middle of the summer. The predominant exposure to the south is devoid of tall buildings currently allowing full sunlight; however, the allowable height zoning which will apply, unless and until the area is rezoned or placed in a redevelopment area, ranges from 200 to 400 feet The future redevelopment plans suggest that there will be major tall buildings to the east as well.

Summary: Variable massing, although redevelopment plan would allow tall buildings in vicinity.

Mid-Embarcadero
Massive Embarcadero Center to the south, Maritime Plaza to the west, and Golden Gateway to the north bracket the site, offset to some extent by totally open water view to the east. Block 203 would receive direct sunlight only sporadically in winter. However, the front of Block 202 would receive considerable sun at all times, as would entire site for four months of year. Moreover, shadowing studies reveal that the two blocks in the aggregate average substantial sunlight except for winter months. Proposition K would impact the site's building height due to the potential impact on Maritime Plaza's podium park.

Summary: Skyscrapers on three sides; limited direct sunlight in winter; open to east.

Broadway/Embarcadero
Open exposures will exist on all sides. Gateway Commons represents a massing consistent with the scale of the museum. Limited zoning allowance precludes future blockages. Expansive open water view to the east enhances ambient light.

Summary: No building mass except Gateway Commons; constant direct sunlight.

Criterion 4.3: Allow Museum to Create/Project its Identity and Reflect the Image of Welcoming Diverse Audiences

Golden Gate Park
Site remains confined to preexisting footprint, including Asian Art Museum's, which will be moving. Historic original site provides identity and imageability. Park setting enhances image of welcoming audiences as diverse as park users. Potential conflict with natural setting limits design expression, including verticality.

Summary: Historic site; natural constraints; diversity of park users

Transbay District
A highly urban setting and surrounding office towers subordinate this site. There is potential synergy with block to west to be used for cultural or park functions, which offers enhanced public identity. The dense urban character and the high volumes of vehicular traffic requires an "oasis" feel to attract and welcome audiences in. However, it is difficult to envision that this form of "protected" quality can emerge. Strong, massive and/or "busy" office tower designs compete for attention.

Summary: Urban and high activity suggests conflict; oasis effect not clearly attainable.

Mid-Embarcadero
The orientation of this longitudinal site to the waterfront, Market Street and the Ferry Building provides a form of entry, and offers a substantial opportunity for welcome and identity. Although the character of the surrounding office and residential areas may not yet be as familiar to a broad audience, this should be overcome by physical prominence and direct access.

Summary: High visibility from and outlet to waterfront offsets current image imparted by abutting office and residential development; upscale setting balanced by pedestrian, transit and ferry proximity.

Broadway/Embarcadero
Character of site is one of an "edge" between disparate functional areas. The abutting development, however, is of a highly compatible scale which precludes adverse effects. The ability to project an identity is lessened by a quality of remoteness from activity. There could be great latitude in design, although it will be constrained by adjacent private ownerships and long-term leases.

Summary: Site is largely neutral, although opportunity for a more massive building than surroundings offers identity.

Criterion 4.4: Avoid or Lessen Conflicts with Activities or Physical Conditions in Surrounding Areas

Golden Gate Park
There is no physical conflict between the museum and its setting. However, there is a very serious conflict in terms of function between a growing museum and a growing demand for park and recreational escape. This has been manifested most seriously in the controversy relating to the need for parking for visitors, and the limitation of access arising from weekend closures of Kennedy Drive.

Summary: The highly compatible physical setting relating to the park generates in turn a highly incompatible functional setting. The physical setting is unlikely to improve or worsen, but the functional conflicts will doubtless worsen.

Transbay District
The key characteristic of the Transbay area is conveyed by its name, derived from Transbay Terminal, a transportation facility. Although new lands have been made available from the elimination of access ramps to the Bay Bridge, the traffic which they transferred readily to the North of Market area has turned into ground-level traffic, with associated noise and other effects. This can impinge on the new museum. The most serious conflict relating to transportation is with the avowed intent on the part of the Joint Powers Board to locate a new train station, traversing potential sites in the area. At the same time, the new city policy is that of converting the area into a cultural complex, originally centered on the Civic Center. Were this to be implemented fully in the future, there would be a real synergy from adjacent artistic and cultural uses, as well as scientific centers (the Academy of Sciences, for instance). The speed with which this can be implemented is highly conjectural. In the interim, the area will continue to be dominated by a highly urban, and occasionally tawdry, streetscape and activities.

Summary: Conflicts between the basic transportation function of the Transbay area and the proposed cultural center activities will remain for some time to come. At the same time, the

largely featureless, and occasionally tawdry, urban setting will continue to affect the compatibility, appearance, environment, and functioning of the area.

Mid-Embarcadero:
The site is centered between a major office-retail and a major residential complex. a museum would likely benefit from this proximity. It is clear that there will be competition for limited parking spaces, but the existence of alternative modes of movement should help to change the means by which museum visitors arrive. Although the two blocks now act as a form of buffer with the Embarcadero Center from the residential areas, it is likely that the museum could function in the same way to a lesser extent.

Summary: Conflicts might arise with the three adjacent uses, although the area has such pervasive charm that it is likely to be able to accommodate a museum use.

Broadway/Embarcadero
There are few potential incompatibilities with adjacent uses, other than with the Gateway Commons residents. The scale of buildings is largely the same and would remain so. The blockage of views would not likely be a serious concern. Light and air are abundant. There are likely to be no serious negative impacts on the museum or from the museum.

Summary: Highly compatible use.

Criterion 4.5: Enhancement of Museum-going Amenity

Golden Gate Park
The museum's current setting in Golden Gate Park offers the amenities of a beautiful urban park, cultural facilities, and numerous recreational opportunities. The facade of the existing museum faces south and receives considerable direct sunlight.

Summary: Substantial daylight and distinctive park amenities.

Transbay District
This site is within close proximity to the MOMA and Yerba Buena Gardens, the financial district, Union Square, and the waterfront, offering the museum visitor numerous nearby attractions. Strong southern exposure creates a sunny site.

Summary: Close proximity to variety of San Francisco attractions.

Mid-Embarcadero
Surrounded by upscale office, retail and residential development, and the waterfront promenade, the Mid-Embarcadero site offers the museum visitor a variety of adjacent downtown amenities. Despite the adjacent tall buildings, the site does enjoy considerable sunlight and exposure to the bay.

Summary: Numerous surrounding downtown amenities.

Broadway/Embarcadero
The views from this site provide a sense of the variety of attractions nearby – downtown, the waterfront, Telegraph Hill, and North Beach. However, there is still a feeling of being somewhat removed from these attractions and activities, given the site's location on the edge of downtown. The site's open exposure on all sides and an expansive view of the water create a sunny and pleasant setting.

Summary: Variety of attractions; pleasant setting.

Criterion 4.9: Availability of Nearby Open Space with Potential for Use as Sculpture Garden with an Absence of Disturbing Noise, Wind and Glare

Golden Gate Park
The de Young Museum is currently located in one of the most beautiful urban parks in the country. The site itself is situated along the northern edge of the Music Concourse, a formally landscaped pedestrian area providing walking paths and seating areas. The site is large enough to accommodate the footprint of the museum and a sculpture garden. Noise, wind and glare are minimal at this site.

Summary: Sculpture garden can be accommodated; park setting ideal.

Transbay District
The Transbay site can also accommodate a sculpture garden, although it will be difficult to shield the garden from traffic noises, given the heavy use and traffic congestion along Fremont, First, Mission and Howard streets. Wind and glare should not be problematic, as the site will be protected by tall buildings on three sides.

Summary: Sculpture garden can be accommodated; noise may be a problem.

Mid-Embarcadero
The park-like setting envisioned for the museum at this site includes a sculpture garden. Being nestled in among the Embarcadero Center and the Golden Gateway, and somewhat

set back from the Embarcadero itself, the sculpture garden would be protected from most noise, wind and glare.

Summary: Sculpture garden included in site's park-like setting; noise, wind and glare not problematic.

Broadway/Embarcadero
Although this site is somewhat constrained, open space is planned for a sculpture garden. The site's exposure to the Embarcadero and the waterfront, coupled with the lack of adjacent taller buildings, may subject the sculpture garden to considerable noise during peak traffic hours, as well as wind.

Summary: Sculpture garden on site; considerable noise and wind at times.

Criterion 6.2: Potential as an Attraction with a Compatible and Synergistic Presence Capitalizing on Nearby Activities

Golden Gate Park
The clustering of cultural facilities and museums around the site create a synergistic presence within the park, despite the distance from urban activity and other attractions located downtown and in the central area of the city. The park's physical setting is highly compatible with the existing museum, although the functional setting is not, given the increasing demand for recreational space.

Summary: Synergistic with clustering of cultural facilities and museum; highly compatible physical setting relating to the park; highly incompatible functional setting.

Transbay District
The Transbay site has the potential to be highly compatible if the city policy to turn the area into a cultural complex is realized. Currently, however, the largely featureless, highly urban area does not present much opportunity for synergy with the museum. The MOMA, Yerba Buena Center, and numerous galleries are just blocks away from this site, but the somewhat tawdry immediate surroundings of the Transbay site hinder a clear connection and unified identify between the two areas.

Summary: Limited opportunity for a compatible and synergistic presence given the current state of the surrounding area. Implementation of city plans may increase potential for synergy in the future.

Mid-Embarcadero
The site is surrounded by a mix of office, retail and residential uses, with a variety of public events and activities taking place at neighboring Justin Herman Plaza and the nearby

waterfront. Although the area currently does not possess a cultural presence, the high level of urban activity and the attractiveness of the site are conducive to creating such a presence.

Summary: Site offers potential to create a highly compatible and synergistic presence.

Broadway/Embarcadero
The scale of surrounding buildings would create a physical compatibility at this site, although the area's uses and activities create varied degrees of synergy. Many of the city's more creative businesses are located near the site, and are likely be strong patrons of the museum. The waterfront is also a popular attraction for local residents as well as tourists, and the museum should benefit from its exposure at this site. However, the site's location on the edge of the downtown may limit its ability to directly capitalize on nearby activities.

Summary: Compatible and synergistic presence; somewhat removed from downtown activities.

Criterion 7.1: Ability to Concentrate Similar Administrative and Curatorial Activities

Golden Gate Park
Currently, the curatorial offices of the de Young Museum and the Palace of the Legion of Honor are located at the respective museums. The administrative headquarters of the Fine Arts Museums are located near Union Square in Downtown. This location has been maintained since 1992, when the Palace of the Legion of Honor was closed for renovation. This arrangement of administrative and curatorial offices is not considered efficient, militating against desirable coordination. The rebuilding of the de Young Museum in the park would allow the administrative offices to be consolidated at the de Young, improving the level of coordination with both museums, which are less than two miles apart.

Summary: Coordination of administrative and curatorial and other museum activities enhanced by relative proximity.

Transbay District
With administrative headquarters for the Fine Arts Museums of San Francisco transferred to this site, operations should become more efficient by combining the control with the related activities of the larger of the two constituent museums. However, it would not improve the situation with the Palace of the Legion of Honor, which would remain a distant six miles away and would not even have the contact provided by the current de Young Museum staff and location.

Summary: Administrative headquarters consolidated with curatorial activities of the de Young; however, the Legion would become even more isolated.

Mid-Embarcadero
With administrative headquarters for the Fine Arts Museums of San Francisco transferred to this site, operations should become more efficient by combining the control with the related activities of the larger of the two constituent museums. However, it would not improve the situation with the Palace of the Legion of Honor, which would remain a distant six miles away and would not even have the contact provided by the current de Young Museum staff and location

Summary: Administrative headquarters consolidated with curatorial activities of the de Young; however, the Legion would become even more isolated.

Broadway/Embarcadero
With administrative headquarters for the Fine Arts Museums of San Francisco transferred to this site, operations should become more efficient by combining the control with the related activities of the larger of the two constituent museums. However, it would not improve the situation with the Palace of the Legion of Honor, which would remain a distant six miles away and would not even have the contact provided by the current de Young Museum staff and location. With administrative headquarters for the Fine Arts Museums of San Francisco transferred to this site, operations should become more efficient by combining the control with the related activities of the larger of the two constituent museums. However, it would not improve the situation with the Palace of the Legion of Honor, which would remain a distant six miles away and would not even have the contact provided by the current de Young Museum staff and location

Summary: Administrative headquarters consolidated with curatorial activities of one of two museums

Criterion 7.2: Ability of Site to Optimize Revenues by Attracting Visitors for Viewing Art, Patronizing the Bookstore and Cafe, and Event Rental, Within the Capabilities of Likely Visitors to Afford Admission and Purchases (By Assuring Ease of Access, Public Awareness and Visibility, and Projecting an Inviting Museum "Face")

Golden Gate Park
The Golden Gate Concourse site ranks the lowest in terms of visitorship potential mainly due to transportation issues, a factor that is compounded by the lack of a parking garage. In addition, there are very few hotels and daytime employees in the surrounding area to boost visitorship.

Summary: Transportation issues, lack of surrounding hotels and employment.

Transbay District

The Transbay Terminal site offers very good transportation access via both private automobile and public transit and is part of the Financial District, with numerous nearby office workers. In addition, this site is in an area that will be experiencing a tremendous transformation as part of the Transbay Redevelopment Project Area. However, in the interim, the area has a somewhat greater perception of crime and does not offer as many complementary uses as the area located immediately north of Market Street.

Summary: Good transportation and part of Financial District; transitional area.

Mid-Embarcadero

The Mid-Embarcadero has the greatest potential with excellent transportation, synergistic attractions and very good accessibility to tourists and office employees. Due to the number of people in the area, this area also has a low perception of crime.

Summary: High ratings for all visitorship factors.

Broadway/Embarcadero

This site, between the Financial District and the Fisherman's Wharf tourist area, is proximate to complementary attractions and has good transportation. However, it is somewhat less convenient than Mid-Embarcadero with respect to these attractions as well as accessibility to offices and hotels.

Summary: Less convenient to nearby attractions and potential visitors from offices and hotels.

Criterion 8.1: Increase Compatibility with Surrounding Areas

Golden Gate Park

Site is already physically compatible with its park surroundings, although the existing museum does face functional compatibility conflicts given the growing demand for park and recreational escape. This has been manifested most seriously in the controversy relating to the need for parking for visitors, and the limitation of access arising from Sunday and holiday closures of Kennedy Drive.

Summary: The highly compatible physical setting generates a highly incompatible functional setting.

Transbay District

The primary surrounding land uses in the Transbay area are Class B and C office space and retail, providing support and business services to the downtown financial district. While a

museum at this site is not entirely incompatible in terms of land use and physical form, it lacks a strong connection to and synergy with its surroundings. Other plans presented for the area, including a new train station and a cultural complex, also put the compatibility issue in limbo.

Summary: Lack of compatibility with current land uses and physical form.

Mid-Embarcadero
The convergence of office, retail and residential land uses at this site might make a museum seem like an inappropriate use for the site. However, the dynamism of the site and the surrounding land uses and environment could make for a highly compatible museum site. Although the two blocks now act as a form of buffer with the Embarcadero Center from the residential areas, it is likely that the museum could function in the same way to a lesser extent.

Summary: Some adjacent use incompatibility but area's pervasive charm fosters accommodation.

Broadway/Embarcadero
There are few potential incompatibilities with adjacent uses, other than with the Gateway Commons residents. The scale of buildings is largely the same and would remain so. The blockage of views would not likely be a serious concern.

Summary: Highly compatible use.

Criterion 8.2: Extent of Revitalization of Surrounding Areas Consistent with City Programs

Golden Gate Park
The adjacent uses are residential and recreational. The residential areas are predominantly built out, mostly with single-family dwellings, except for some apartments on Fulton Street. There is unlikely to be any further stimulus to the area from the maintaining of the museum in the present location, notwithstanding its new appearance and functionality. Conversely, the recent Environmental Impact Report on the Golden Gate Park Plan has termed the museum as a "nonconforming" and "non-recreational" use, suggesting, if not stating outright, that the museum is not only unlikely to revitalize the recreational use of the park but rather would militate against its enhancement.

Summary: Revitalization of surrounding residential uses unlikely; purported harmful effect on park-type recreation.

Transbay District
The city has recently adopted a concept plan for the Transbay District that seeks to convert it into a mixed-use living and working area accented by a major new transportation hub. The plan, prepared jointly by the Redevelopment Agency and the Planning Department, proposes to create several new open spaces and a new "gateway" to the Downtown. The process led to a plan with a heavy emphasis on downtown office and retail, mixed-use residential and office, open space and transportation. Significantly, it also proposes a major education/cultural and entertainment area at and near the Transbay District site, perhaps providing a corridor terminus of a museum walk. A proposed museum would provide an important catalytic effect on this project, which is in need of an "anchor" project.

Summary: Museum consistent with plan would galvanize area and jump-start revitalization.

Mid-Embarcadero
The Waterfront Plan of the Port proposes a 21st century linear recreational corridor extending from China Basin and beyond to the Northern Waterfront. The keystone is the Mid-Embarcadero Ferry Plaza and environs improvements. The museum would provide an important destination along the corridor. The Embarcadero Redevelopment Project Area abuts, but at a key location is separated from, the Golden Gateway residential project area. The former site of the freeway ramps would provide an important buffering linkage between these two areas and would provide amenity for one and an attractive magnet for economic benefit for the other.

Summary: Museum would constitute key link along waterfront park and between redevelopment areas.

Broadway/Embarcadero
The museum would be consistent with the Waterfront plan but not necessarily with ad hoc pronouncements of Port staff to seek greater revenues from these seawall and other sites. The area was originally anticipated to remain as an historic area given its designation as a local historic district despite a lack of historic structures on the site. Development in the area would link the Levi Plaza and Gateway Commons areas. On the other hand, the area currently lacks identity and would be benefited from the image-building presence of an important institution. The Port currently anticipates a major use for Piers 15-17, which is more likely to occur with a facing public attraction. Also, it can be expected that the city will someday in the not too distant future embark on a program to upgrade the entire Broadway corridor from the waterfront to the tunnel; a museum would provide an important gateway for a revitalized Broadway.

Summary: This site would further public functional goals but not necessarily meet Port financial goals.

Criterion 8.3: Consistency with City Master Plan, Other Comprehensive Plans, Redevelopment Plans, and Subarea Plans

Golden Gate Park

A new building on the site would require Planning Commission approval; however, it appears that possible interpretations of the Master Plan, including its land use and cultural elements, might suggest some ambiguity that could affect future approvals needed for rebuilding. Once the Golden Gate Park Plan is adopted, its environmental impact report certified, and it is incorporated as part of the city's Master Plan, the reference to the museum as "nonconforming" and "non-recreational" is likely to suggest that it is no longer consistent with the Master Plan. The Recreation and Park Department's sponsored Golden Gate Park Plan is clearly oriented to expanded active and passive recreational (distinguished from cultural) activity.

Summary: New Golden Gate Park Plan and EIR questions museum's compatibility and standing under the City Master Plan.

Transbay District

The City Master Plan and the Downtown Plan anticipate that substantial amounts of office development will be channeled to the South of Market area to relieve the pressures on the North of Market historic financial district. However, the new Transbay District Concept Plan essentially draws that office extent at Mission Street and the eastern end of Howard Street. The southern portion will be proposed for residential-mixed use activity, while the intermediate area will include cultural and entertainment uses. Hence, a museum would be consistent with all of these plans. On the other hand, the proposal by the Peninsula Corridor Joint Powers Board is for an extension of CalTrain into the museum study area. This proposal has been subject to a completed EIR. The Joint Powers Board will be making a decision sometime this summer. If the Board approves the station project, the museum space program would be inconsistent with the train station as presently conceived although its basement might be reconfigured at great expense.

Summary: City , Downtown and Transbay District Plans accommodate museum activity. CalTrain Extension is not consistent due to space, timing and implementation constraints.

Mid-Embarcadero

The use of the area for a museum would be consistent with the Master Plan and with the basic underlying P zoning, denoting public ownership and use. The area is essentially unzoned, and would require action by the city. The Proposition K limitation will affect the western end of the site. Of course, the museum would be subject to the Master Plan referral procedure, which involves recommendation from the Commission to the Board of Supervisors and would require a Master Plan amendment and zone redesignation. The Mid Embarcadero Open Space Project proposed a variety of optional uses for the two pertinent

blocks of which the museum was one of the more prominent. However, this was when the Redevelopment Agency anticipated it would be using Block 203 for hotel use. Upon the withdrawal of that proposal, the Board of Supervisors enacted a resolution which states that ". . .improvements to Assessor's Blocks 202 and 203 shall be limited to landscape improvements until such time as additional public uses that may be proposed in the future are further analyzed by the Planning Commission and the Board of Supervisors." This, essentially, creates a "holding zone" pending consideration of other public non-open space uses. The museum's proposals for open space elements, including a sculpture garden, could provide many of the open space amenities desired for the area.

Summary: Public uses for site require Planning Commission and Supervisors approvals.

Broadway/Embarcadero
This site is outside the redevelopment areas, just as are Blocks 202 and 203. However, it has not been the subject of any sub-city plan. The Master Plan indicates that it is zoned C-3 with an 84-foot height limit. It is located in the Northeast Waterfront Local Historic District. This district has no particular regulatory significance, although it would mean that any proposed project would be subject to approval by the Landmarks Board, with appeal to the Planning Commission and Board. The Waterfront Plan suggests that this is an opportunity area, meaning that the Port is interested in early use.

Summary: Site use will be reviewed by Port Commission for consistency with Waterfront Plan.

Criterion 9.1: Avoidance of Legal or Processing Problems, Costs and Delay

Golden Gate Park
Under its interpretation of the city charter, the Recreation and Park Commission contends that the new museum cannot go outside the boundaries of the present structure without a two-thirds vote of the Board of Supervisors, as well as a majority vote of the electorate. The museum will require approval of the building design by the Art Commission, as well as by the Planning Commission with regard to Master Plan conformity. There is concern that the Master Plan's limits on "non-recreational uses" in the Park could require the museum to provide its museum services elsewhere.

Summary: Rec-Park Commission can exercise jurisdiction over any rebuilding. The Art and Planning Commissions must approve as well, but Master Plan interpretations may make approval difficult.

Transbay District
The Peninsula Corridor Joint Powers Board is an entity created by the governing bodies of the three counties represented: San Francisco, San Mateo and Santa Clara. Under the Joint Exercise of Powers Act, any power that all of the participants may exercise independently may be delegated officially to a new entity to exercise jointly. The current zoning for the north third of the block is 30 feet, the middle third is 80 feet, and the south third is 300 or 400 feet. At present, the land in question is owned by the State of California, and Caltrans more specifically. This will mean that the land would first have to be conveyed , presumably at nominal cost, to the city.

Summary: To use site, city may have to abrogate Joint Powers Agreement. Need Caltrans conveyance, and Planning Commission and Board approvals.

Mid-Embarcadero
Blocks 202 and 203 are owned by the City and County of San Francisco. Hence, they would be bound by the Master Plan. This now reflects the Mid Embarcadero Open Space Plan adopted by the Board. The adoption resolution leaves later public use of the subject blocks open. The northern half of Block 202 is included within the Embarcadero-Lower Market Redevelopment Project Area E-1. Since the southern half is city-owned, it would be subject to Master Plan referral procedures by the Planning Commission and the Board of Supervisors. The OS zoning would require a rezoning as well, presumably to C-3G, with height subject to urban design review and Proposition K. If the Recreation and Park Commission were interested in shifting its jurisdiction to the eastern half of Block 202, they could do so with Board approval. The current EIR is anticipated to cover the museum, since it was already included as one alternative. If the site were proposed to be included in the Redevelopment Area, the area would not be subject to city zoning but would have to proceed through the redevelopment project area creation process. Since the land is owned by the city, it will require the City Real Estate Department to concur in its disposition.

Summary: If the land is placed within a redevelopment area, the Redevelopment Agency would have jurisdiction. Otherwise, the Planning and Art Commissions and Board of Supervisors must approve the project.

Broadway/Embarcadero
The land is partially privately owned, and is zoned to accommodate the museum. Other portions are under the jurisdiction of the Port Commission, and would require its approval. None of the land is under the jurisdiction of BCDC. Other city agencies would have to concur, as they would for the other sites.

Summary: The Port Commission would be the key agency whose approval is required.

Criterion 9.7: Likelihood of Voter Approvals (No Political Polling Undertaken)

Golden Gate Park
The fact that the museum has already failed of approval in the park with a garage, without approval would be difficult.

Summary: Two-thirds voter approval conjectural.

Transbay District
Two-thirds voter approval is unlikely if the museum project is perceived as being in opposition to the CalTrain Extension. Leaving the park may generate opposition.

Summary: Two-thirds voter approval conjectural.

Mid-Embarcadero
Were tax increments to be made available, no voter approval would be required. Such monetary transfer may be more remote absent placing the site in a redevelopment area, despite legality of use of increments were the project to benefit lands within an adjacent project area. Two thirds voter approval of bond issue conjectural. May require inclusion in redevelopment area to gain tax increments. Project expedited since the Mid-Embarcadero Open Space EIR, now partially completed, covers the project. Leaving the park may generate opposition.

Summary: Two-thirds voter approval of bond issue conjectural.

Broadway/Embarcadero
With strong support and absent any significant opposition, voter approval of a bond issue is conjectural. Leaving the park may generate opposition.

Summary: Two-thirds of bond issue voter approval conjectural.

Criterion 9.8: Potential for Future Expansion in Adjacent Area/Building

Golden Gate Park
Once rebuilt, the museum would have virtually no opportunity for expansion under the city Master Plan and the Draft Golden Gate Park Master Plan, if adopted.

Summary: No expansion possible.

Transbay District
Various options are available for expansion, particularly on the block to the west. Other opportunities also may become available.

Summary: Expansion possibilities exist in area.

Mid-Embarcadero
Options of expansion include the lands to the north along the Embarcadero, now occupied by the tennis courts and privately owned, and the lands occupied by the abandoned Chevron gas station, called Seawall Lot 351, with approximately 15,000 square feet. The Port Waterfront Design and Access Plan would allow development on this site. Additionally, lands to the south occupied by the Embarcadero Median and the Bus Turnaround may become available. Pier 1 may become available although it is slated for a comprehensive pier preservation study to develop recommendations for adaptive reuse; a policy is emerging that the south side of Pier 1 should be used to provide public access and views to the ferry areas, and which would connect to the Embarcadero Promenade. In fact, a major possibility is use of both Piers 1 and 3, and perhaps a space between to constitute a major public space or park. An urban design policy would allow views and public access through these two piers where compatible with historic preservation needs.

Summary: Many important expansion opportunities exist on Port and public lands.

Broadway/Embarcadero
The two major privately owned parcels could be acquired, as well as the smaller building fronting on Broadway (assumed to be acquirable). At least one building is the subject of a long-term ground lease with a 45-year duration. Additionally, some of the piers might be made available, although that would require BCDC approval. The Port is considering creation of a major public open space, called the "Northeast Wharf." One of these options is Piers 15 and 17, which could be used as a sculpture park. Pier 17 remains a candidates for removal; Pier 15 is considered historic.

Summary: The lands on the seawall parcel to the north could be used for parking, and other nearby parcels may become available.

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APPENDIX D

Real Estate and Financial Evaluations

Prepared by Sedway Group

CRITERION 9.2: LIMITING COST AND DELAY OF ACQUISITION

GOLDEN GATE CONCOURSE

There are no acquisition costs associated with the Concourse site within Golden Gate Park as the museum already controls the site.

Rating: **Very High**
Summary: **Current site; no cost of acquisition**

TRANSBAY TERMINAL

The Transbay Terminal site consists of both public and private properties. The privately-owned properties include two Assessor's Lots used as a parking lot. A third lot is improved with a two-story manufacturing building. The order of magnitude acquisition cost estimate for these properties is based on the estimated price per square foot of land or building applied to the appropriate area, as adjusted based on the probability of various outcomes discussed below. Not included in the estimated acquisition costs are the complexities and scheduling uncertainties associated with the site.

The public land represents the existing Transbay Terminal owned by the State of California (CalTrans). It is CalTrans' policy to not make a gift of state property. Typically, CalTrans sells excess land at public auction if the governing municipality does not exercise its first right of refusal to acquire the land at market value. However, there are three situations when land is not sold at market value:

1. State legislation is passed allowing CalTrans to "gift" the land to the municipality or other agencies. This situation occurred after the Loma Prieta Earthquake, when State Senator Quentin Kopp successfully sponsored a bill giving the land under the former Embarcadero Freeway (Interstate 480) to San Francisco. (Portions of the Mid-Embarcadero site discussed earlier are part of this land.) This type of gift could have greater support in the aftermath of a natural disaster. It is speculative that state support could be generated to "give away" such a valuable property.
2. A cooperative agreement is made between CalTrans and the municipality. The land is often exchanged for some form of state benefit (e.g., infrastructure improvements).
3. A direct agreement is made between CalTrans and the municipality. The land is often exchanged for some form of state benefit.

According to the Mayor's Office, the City of San Francisco will attempt to obtain the Transbay Terminal and related land (under the connector ramps) from the State at no cost. At this time, it is uncertain whether the City will pursue the legislative option or some form of agreement. The Transbay Terminal site will probably be part of a larger request that includes funding for the construction of a replacement regional transit facility. There is also a possibility that this project may be included with the Bay Bridge retrofit project. Regardless of whether this acquisition is pursued via legislative action or an agreement, the process will involve generating statewide support for the project, of which the Transbay Terminal site is just a part.

Given the volatile nature of statewide politics and the publicized CalTrans budget constraints, it is unknown whether the City would be successful in its goal of obtaining the Transbay Terminal site at no cost. As it is impossible to forecast the City's probability of success, for purposes of analytical comparison the most reasonable option is to assume a 50 percent probability that the land can be obtained at no cost. This implies that there is a 50 percent chance that the land would be acquired at a cost similar to market value. Thus, the

estimated acquisition cost for the Transbay Terminal land is a 50 percent probability applied to the estimated land value.

Complicating the Transbay Terminal site even further is the fact that the San Francisco Redevelopment Agency plans to include it in a new Transbay Project Area. This project area is expected to be in place in April 1998. A key assumption for this new Transbay Project Area is that the City will own the land currently used for the Transbay Terminal and connector ramps. It is assumed that the private property owners sharing the Transbay Terminal block would accept a "land swap" with other Project Area sites (specifically, state land assumed to be granted to the City and then controlled by the Redevelopment Agency). The Redevelopment Agency would handle the trade, allowing the museum to acquire this privately-owned land at no cost. Therefore, there is a reasonable probability that the Redevelopment Agency could arrange an acceptable land trade for the private landowners (75 percent); however, this probability is based on the ability of the City to obtain the land at no cost (50 percent). Based on this, the estimated acquisition cost for the privately owned properties is multiplied by 62.5 percent (100% - (50% X 75%)).

Based on the probability analysis presented in the two previous paragraphs, the order of magnitude acquisition cost estimate for the private and public portions is $11,080,000. This includes the estimated relocation costs for the owner-occupant of the industrial building.

Rating: **Average**
Summary: **Estimates are highly speculative and dependent on political decisions; best case cost is zero, worst case cost is $20.6 million**

MID-EMBARCADERO

The two blocks at Mid-Embarcadero, Blocks 202 and 203, are generally owned by the City of San Francisco. One lot is specifically controlled by the Department of Public Works, while another is within the jurisdiction of the Recreation and Parks Department. A few lots may be pending a formal transfer (at no cost) from the California State Department of Transportation (CalTrans), but for all intents they are under City control.

The San Francisco Board of Supervisors passed a resolution in October 1996 (No. 1022-96) limiting the improvements on Blocks 202 and 203 to landscaping "until such time as additional public uses that may be proposed in the future are further analyzed by the Planning Commission and the Board of Supervisors." Thus, a previous plan for the uses on Blocks 202 and 203 to contribute to the costs for improvements at Justin Herman Plaza has been abandoned. As these lots are either already owned by the City or pending a cost-free transfer from CalTrans, the potential acquisition costs related to this alternative are assumed to be zero.

Rating: **Very High**
Summary: **City owned or ownership in process; no cost of acquisition**

BROADWAY/EMBARCADERO

The Broadway/Embarcadero site consists of 1) two privately-owned buildings, 2) a City-owned lot (pending transfer from CalTrans), and 3) four parcels controlled by the Port of San Francisco.

- The estimated acquisition cost for the two privately-owned buildings are based on the building area multiplied by a market-based price per square foot of building area. An additional cost item is reimbursement of relocation expenses to the four businesses that occupy these buildings. Not included is the possibility of litigation to gain control of property under lease.
- The City-owned lot is assumed to have no acquisition cost.
- The four Port of San Francisco parcels cannot be sold, but rather can be ground-leased for a period of up to 66 years. The Port also cannot execute an agreement transferring occupancy of land "below market." The Port typically appraises the market value of the land and applies an annual percentage return (usually 9.0 to 10.0 percent) in order to derive the annual lease rate. Thus, the estimated acquisition cost is based on the estimated land value (land area times the price per square foot of land area), which is then converted to an annual rent by multiplying by 9.0 percent (assuming that the Port would accept a low-end return for a public use).

The total up-front estimated acquisition cost (including relocation costs for the tenants of the privately-occupied buildings) is $14,210,000. (This figure is provided for comparison with other options and assumes that the Port land could be purchased.) Based on the Port's inability to sell land, the up-front acquisition cost for their land equates to an annual ground rent of $863,000 per year. An additional up-front cost of $4,620,000 is required for the non-Port properties, including tenant relocation costs.

A fifth Port-owned lot is ground-leased to a private entity that has constructed a building and leased it to ABC Broadcasting. There are about 45 years remaining on the ground lease. If this lot were acquired, the cost would include annual ground rent to the Port and an up-front acquisition cost of the building paid to the ground-lessee, estimated as the price per building square foot multiplied by the building area less the land cost estimate. There would also be a tenant relocation cost paid to ABC estimated at $100,000.

If the ABC Broadcasting building and related Port-owned lot were included, the up-front acquisition cost would increase to an estimated $11,010,000 and the annual ground rent would increase to $1,407,000. The total cost equivalent (if all property were purchased today) for comparative purposes is $26,640,000.

Rating: **Very Low**
Summary: **Purchase and ground lease; ABC building expensive; relocation costs and site control issues**

DE YOUNG MUSEUM RELOCATION STUDY
ALTERNATIVE SITES PROPERTY ACQUISITION COSTS
MAY 1997

Property Address	Block/ Lot	Improvements	Land Sq. Ft.	Bldg. Sq. Ft.	Zoning	Ownership or Authority	Comments	Cost Per SF	Cost Estimate (1)
Broadway/Embarcadero									
Privately-owned Properties									
777 Davis St.	140/1	Office Building	18,769	25,194	C-2	KSW Properties	2-story building; renovated	$120	$3,023,280
60 Broadway	140/5	Office Building	8,076	13,194	C-2	Realtime Partners	2-story building; UMB exempt	$115	$1,517,310
Public-owned Properties									
E/S Davis, N of Broadway	140/8	Parking Lot	10,165	None	C-2	CalTrans (State)	To be deeded to City	0	0
NEC Broadway & Front	140/7	Parking Lot	37,675	None	C-2	Port of San Francisco	Seawall Lot 322-1	$80	$3,014,000
NEC Broadway & Davis	139/2	Parking Lot	32,500	None		Port of San Francisco	Seawall Lot 324, size from PSF	$80	$2,600,000
NEC Vallejo & Davis	138/2	Parking Lot	3,123	None	C-2	Port of San Francisco	Seawall Lot 323	$80	$249,840
NEC Green & Front	110/2	Parking Lot	46,600	None	M-1	Port of San Francisco	Seawall Lot 321	$80	$3,728,000
Broadway/Embarcadero Totals			156,908	38,388					$14,132,430
							Plus: business relocation costs (2)		$80,000
									$14,210,000
Add: ABC Building									
Vallejo/Davis/Green/Front	137/1	Office Building	75,489	137,000	C-2	Port of San Francisco	Seawall Lot 322; building size per	$80	$6,039,120
						GB Associates LLC	Port; ground lease - 45 years left	$90	$6,290,880
							Plus: business relocation costs		$100,000
Total Including ABC Building									$26,640,000
Mid-Embarcadero									
South side Block 202	202/6,14,15	Vacant	52,855	None	P	CalTrans (state) to City	Estimated size	$0	$0
North side Block 202	202/18	Vacant	58,240	None	P	SF Parks & Rec. Dept.	May not acquire parcel	$0	$0
NWC Clay & Drumm	203/14	Vacant	64,629	None	P	CalTrans (state) to City		$0	$0
SWC Washington & Drumm	203/13	Vacant	10,994	None	P	SF Dept. Public Works		$0	$0
Mid-Embarcadero Totals			175,724	0					$0
Transbay Terminal									
Privately-owned Properties									
172 Fremont St.	3720/5	Parking Lot	9,496	None	C-3S	KSW Properties		$125	$1,187,000
400 Howard St.	3720/6	Parking Lot	8,999	None	C-3S	KSW Properties		$125	$1,124,875
430 Howard St.	3720/7	Industrial Building	26,872	53,744 (estimate)	C-3S	Fritzi Realty	Est. building area (2 stories)	$70	$3,762,080
Subtotal Privately-owned Properties									$6,073,955
Apply Probability Factor								62.5%	$3,796,222
Public-owned Properties									
Mission St., btwn Fremont and First Sts.	3720/1	Transbay Terminal	96,245	N/Av.	C-3O	CalTrans (State)		$150	$14,436,750
Apply Probability Factor								50.0%	$7,218,375
Trasnsbay Terminal Totals			141,612	53,744					$11,014,597
							Plus: relocation costs for Fritzi		$70,000
									$11,080,000

Notes:
(1) City-owned properties are assumed to have no acquisition cost. Port and CalTrans land (except former Embarcadero Freeway land) require compensation.
(2) Cost breakdown is $30,000 each for EDAW (777 Davis) and Realtime Video (60 Broadway); and $10,000 each for two smaller tenants in 777 Davis.

Sources: Port of San Francisco; San Francisco Redevelopment Agency; SMWM; TRW-Redi; Comps Inc.; and Sedway Group.
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CRITERION 9.6: AVAILABILITY OF FINANCING SOURCES

This section addresses the availability of various types of public financing first generally and then in reference to each alternative site. These findings are preliminary, and need further input from City officials and bond counsel. This section assumes that the museum will receive some money towards the construction of the new facility, but that additional public financing will be essential.

The three main possible sources include general obligation bonds, tax increment financing, and revenue bonds. The Museum has already had experience with general obligation bonds, which require a two-thirds voter approval for issuance. As was evident in the recent election, this high level of voter approval is very difficult to achieve. The second method, tax increment financing, does not require voter approval. Although generally limited to use in redevelopment project areas, there are potentially exceptions if bonds are used to finance a project that will benefit an adjacent or nearby redevelopment project area. A third possible source is that of revenue bonds on property owned by the Port of San Francisco. This would apply to only one property, Broadway/Embarcadero, and is considered unlikely due to the existing high indebtedness level of the Port.

Other than the potential for redevelopment financing on the Mid-Embarcadero site, the main potential financing source is a popular form of lease revenue financing known as Certificates of Participation (COPs). These provide long-term funding based on a pledge of annual revenues from lease payments or other sources of revenues such as the City's hotel tax or general fund. This source has tax-exempt status usually both from federal and California taxes and, sometimes with the help of insurance, achieves financing at an interest rate of under 6 percent. COPs can be used to finance up to 100 percent of the cost of the building, with considerable flexibility as to amount and timing.

A major advantage of COPs in California is that they are generally not subject to voter referendum, with the exception of two jurisdictions, one of which is San Francisco. Although there have been notable exceptions where COPs have been issued absent a referendum, it can be assumed that the de Young Museum would need a simple majority vote in order to proceed.

The major challenge to the use of Certificates of Participation for the new museum is that of demonstrating a revenue source from the museum operations. A sufficient surplus of revenues over expenses to cover such financing is likely inappropriate given the role of the museum. Thus, in order to pursue COPs, the museum certainly needs the political backing of the City to provide a source of revenues to pay the debt service on the COPs.

GOLDEN GATE CONCOURSE

Barring passage of a general obligation bond by two-thirds of the City's voters, the only known exception is the above-described COPs.

Rating: **Average**
Summary: **Limited potential financial support, except possibly COPs**

Transbay Terminal

Although the Transbay Area is expected to be a San Francisco Redevelopment Project Area by mid-1998, tax-increment will be limited. Due to timing conflict between the expected construction of the new Museum and the generation of sufficient funds for tax increment financing, beyond those already committed for public improvements, the probability of financial support from this source is limited for this site. COPs also have potential here, particularly in conjunction with other sources of funds that could be available due to the transit uses and issues of blight impacting the area.

Rating: **Average**
Summary: **Potential for COPs**

Mid-Embarcadero

The northern half of Block 202 is in the Golden Gateway Redevelopment Project Area. Currently, there are no plans for the Redevelopment Agency to incorporate the remainder of this site into the project area. However, since the site is adjacent to this project area, which has a nearby commercial component that would benefit from the Museum, there may be potential for the use of tax increment financing. Specific benefits to this project area from the Museum include greater retail sales for Embarcadero Center and a way to address the security problem that currently exists at Block 202 and 203. Thus, there is some potential for tax increment bond financing. However, there are other facilities competing for the funds available through the San Francisco Redevelopment Agency's bonding capacity, especially given the recent merger of the Golden Gateway and South of Market project areas. COPs are also a potential source of financing on this site, especially if there is political support.

Rating: **High**
Summary: **Potential for tax increment financing or COPs**

Broadway/Embarcadero

The site is not expected to be placed into a redevelopment agency project area. Although the site is adjacent to the northern boundary of the Golden Gateway Redevelopment Project Area, this portion of the project area is mostly residential and would not receive any financial benefit from the adjacent Museum. As a result, there is limited or no potential for tax increment bond financing through the San Francisco Redevelopment Agency. However, the Port of San Francisco indicated that it does have the ability to issue revenue bonds. There are a few financing options available through the Port that do not require voter passage, or if they do, the requirement is a 50 percent voter approval, not 66 percent. Despite these potential financing vehicles, the Port has a significant debt load and thus its ability to issue future bonds may be limited. COPs are also a potential financing source for this site, with the caveat that the maximum available will address a lower proportion of the projected land and construction costs (due to the ground lease with the Port).

Rating: **Average**
Summary: **Limited potential for revenue bonds through the Port, or COPs**

APPENDIX E

Construction and Building Cost Evaluations

Prepared by Swinerton & Walberg

DE YOUNG MUSEUM RESTUDY

Criterion 1.2 - Level of Cost to Abate Hazardous Materials

- Golden Gate Park Site: $100,000 below grade and $4,000,000 in existing structures.
- Mid Embarcadero Site: $4,000,000 below grade
- Broadway Site: $4,600,000 below grade and $100,000 in existing structures.
- Transbay with Train Station: $3,000,000 below grade and $100,000 in existing structures.
- Transbay without Train Station: $4,900,000 below grade and $100,000 in existing structures.

Data from the Soil Engineer indicates that the soil at all three downtown sites contains unacceptable levels of contaminants. Assume that 50% of the top 20' of depth of soil at the Transbay and Mid Embarcadero sites will be removed to Class 1 and Class 2 dumpsites. The soil at the Broadway site is reported to be of earlier origin allowing the quantity of removal to approved dumpsites to be reduced to 25%. The Golden Gate Park site may have minimal contamination around the existing fuel tank.

Asbestos and lead paint within buildings that are scheduled for demolition has not been quantified, with the exception of the Golden Gate Park site which was previously surveyed by the Department of Public Health. Allowances are included in the site cost comparison model for the assumed cost of mitigation.

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DE YOUNG MUSEUM RESTUDY

Criterion 1.3 - Ability of Site/Building to Accommodate State-of-the-art HVAC System.

The Golden Gate Park site will have cleaner air for recirculation since it is outside of the downtown zone of air pollution. However, current technology can provide the desired level of filtration, humidity control, heating, and air conditioning at any of the sites.

DE YOUNG MUSEUM RESTUDY

Criterion 1.4 - Ability of Site/Building to Comply with Electrical, Fire, and Life Safety Codes.

All four sites are served by adequate utilities to provide fully operational electrical, fire protection, and life safety systems.

DE YOUNG MUSEUM RESTUDY

Criterion 9.3 - Limiting Cost and Delay of Demolition and Construction (See tabulation of below grade construction cost)

- Golden Gate Park Site: Up to one year for museum relocation, asbestos abatement, and building demolition.
- Mid Embarcadero Site: Up to six months due to cross lot bracing and removal of contaminated soil.
- Broadway Site: Up to eight months for asbestos abatement, building demolition, cross lot bracing and removal of contaminated soil removal.
- Transbay with Train Station: After train station is built, up to six months for asbestos abatement, demolition and removal of contaminated soil.
- Transbay without Train Station: Up to eight months for asbestos abatement, demolition, and removal of contaminated soil.

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DE YOUNG MUSEUM RESTUDY

Criterion 9.9 - Level of Ease of Construction

- Golden Gate Park Site: Good site to build on with well drained soil, direct truck access, open cut excavation, and low water table.

- Mid Embarcadero Site: Difficult site to build on due to contaminated soil, a thick layer of bay mud, downtown restrictions on deliveries and noise, shoring with crosslot bracing and a high water table.

- Broadway Site: Difficult site to build on due to contaminated soil, thick layer of bay mud, downtown restrictions on deliveries and noise, shoring with crosslot bracing and high water table.

- Transbay Site with or without Train Station: Fair site to build on with contaminated soil, thin layer of bay mud and downtown restrictions on deliveries and noise. Use conventional shoring and dewatering systems.

BELOW GRADE CONSTRUCTION COST IMPACT FOR SITES

	Golden Gate Park Site Museum Footprint 136,000 sf Basement Footprint 136,000 sf		**Mid Embarcadero Site** Museum Footprint 124,000 sf Basement Footprint 124,000 sf		**Broadway at Waterfront** Museum Footprint 132,000 sf Basement Footprint 132,000 sf	
Clearing & demolition	$1,400,000		$100,000		$500,000	
Dewatering the site	N/A		400,000		400,000	
Remove underground obstructions	100,000	(piers & oil tanks)	300,000	(freeway)	400,000	(freeway)
Remove contaminated soil	100,000	(localized area)	4,000,000	(50% of top 20')	2,200,000	(25% of top 20')
Remove asbestos and lead paint in structures	4,000,000		N/A		100,000	
Excavation & shoring for 20' basement	1,500,000	(no shoring required)	4,200,000		4,600,000	
Foundation system & utilities	1,100,000		4,700,000		4,900,000	
Basement shell (20' Floor to Floor)	7,600,000		9,000,000		9,500,000	
Auxiliary construction for building	300,000	Relocate Utilities	500,000	Relocate Utilities	200,000	Relocate Utilities
TOTAL	**$16,100,000**		**$23,200,000**		**$22,800,000**	
Alternative at Mid Embarcadero:			($4,500,000)	Deduct		
Port of San Francisco constructs parking at lowest level on half of footprint. Reduce cleanup and foundation cost of Museum by $4.5 million.			**$18,700,000**			
Auxiliary construction for parking			N/A		N/A	
Area of garage			124,000	sf	132,000	sf
Number of parking spaces at 355 s.f./space			350	spaces	370	spaces
Cost per space			$19,400	per space	$19,700	per space
Parking in second level basement	**Not an option**		**$6,800,000**		**$7,300,000**	
Alternative at Mid Embarcadero						
Reduce Garage by $3,000,000			($3,000,000)	Deduct		
			$3,800,000			

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BELOW GRADE CONSTRUCTION COST IMPACT FOR SITES

	Transbay Site With Train Station Museum Footprint 118,000 s.f. Basement Footprint 93,500 s.f.		**Transbay Site Without Train Station** Museum Footprint 118,000 s.f. Basement Footprint 151,000 s.f.	
Clearing & demolition	$400,000		*$400,000	
Dewatering the site	200,000		300,000	
Remove underground obstructions	100,000	(Unknown extent)	100,000	(Unknown extent)
Remove contaminated soil	3,000,000	(50% of top 20')	4,900,000	(50% of top 20')
Remove asbestos in structure	100,000		100,000	
Excavation & shoring for 20' basement	3,200,000		4,600,000	
Foundation system & utilities	1,400,000		1,800,000	
Basement shell with 20' F to F	6,900,000		8,400,000	
Auxiliary construction for building	500,000	(Relocate Utilities)	500,000	(Relocate Utilities)
TOTAL	**$15,800,000**		**$21,100,000**	
Auxiliary construction for parking	N/A		N/A	
Area of garage	93,500	s.f.	151,000	s.f.
Number of parking spaces at 355 s.f./space	265	spaces	425	spaces
Cost per space	$27,900	per space	$23,100	per space
Parking in second level basement	**$7,400,000**		**$9,800,000**	

***Note: Transbay Terminal removed by others**

APPENDIX F

Transportation and Circulation Evaluations

Prepared by Wilbur Smith Associates

TECHNICAL MEMORANDUM
EVALUATION OF ALTERNATIVE SITES
deYOUNG MUSEUM SITE LOCATION RESTUDY
(WSA PORTION-Rev. 5/21)

Criterion 1.5: Ability of Emergency Services, Especially Fire, to Respond to Emergency Situations

Measure: Distance from nearest fire station

Distances to existing fire stations from each potential site were measured on a street map of San Francisco. All sites have reasonably good to excellent location with respect to the nearest fire station. In particular, the downtown sites are all within 3,000 feet (0.56 miles) of Station 13 (530 Sansome), with the closest, Mid-Embarcadero, only 1,700 feet away (one-third mile). The existing deYoung Museum site is located 3,600 feet (approximately two-thirds mile) from Station 31. Given the less congested conditions of the Richmond district, access to the Golden Gate Park site must be considered at least as good as the three downtown sites, and probably slightly better due the lesser likelihood of encountering severe traffic delays due to gridlock.

Exhibits 1.5a and 1.5 b illustrate the locations of the sites relative to the nearest fire stations.

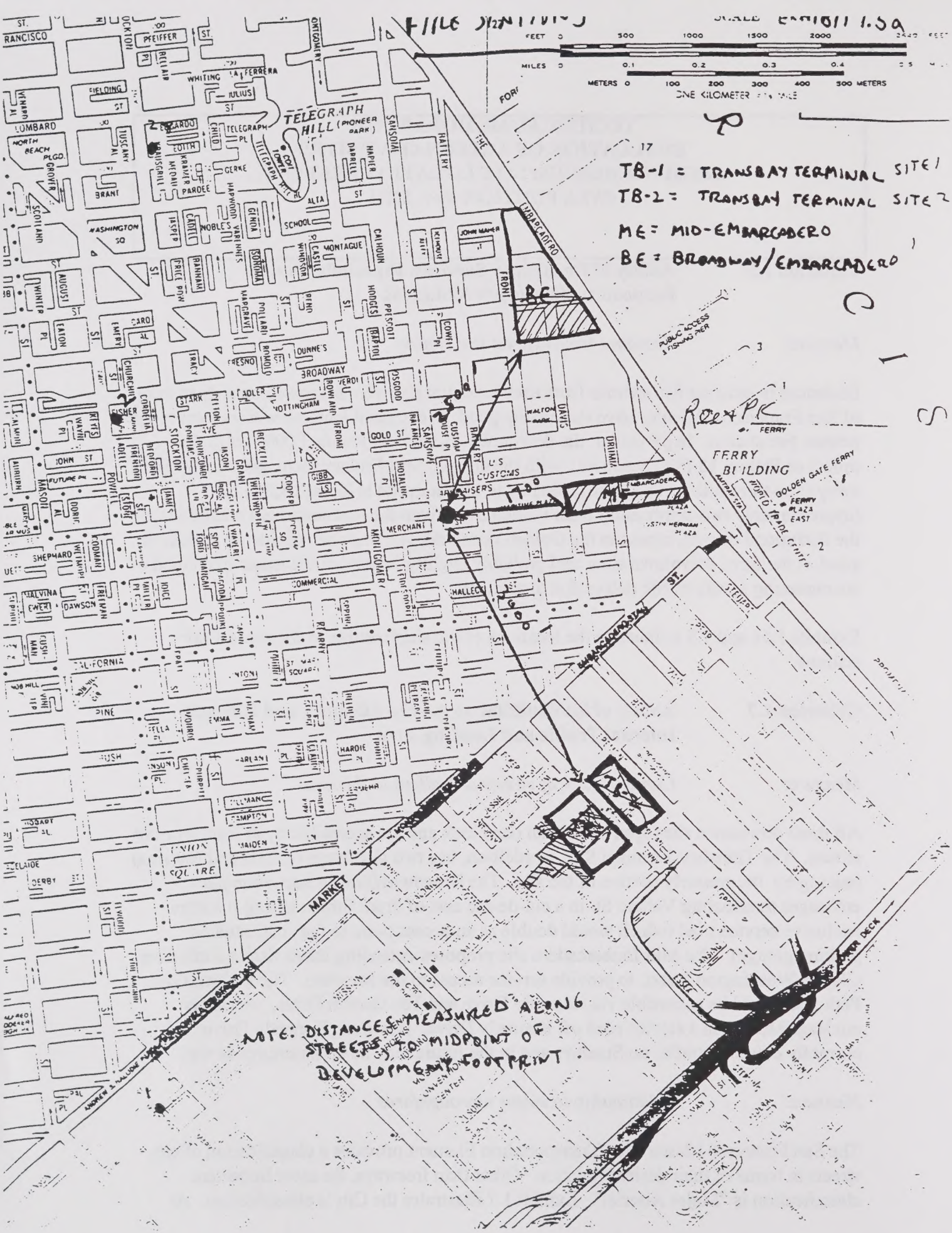
Criterion 1.7 Ability of Site/Building to Assure Adequate and Efficient Internal Traffic and Loading Area

Measure: Configuration of streets and alleys in the Area

All three downtown sites span more than one block and are accessible by at least four city streets. The Transbay Terminal Site, in addition, has two alleyways (Minna and Natoma) passing by the westerly portion of the site. The Broadway/Embarcadero site plan envisages terminating Vallejo St. in a cul-de-sac east of Front Street, giving it a semi-exclusive service road (which would double as an access point to the ABC studios parking garage). The Mid-Embarcadero site proposes extending Davis Street north from Clay to Washington Street, to provide service access to the Museum. The Golden Gate Park site would be accessible via Kennedy Drive and Tea Garden Drive; service is envisaged to be via a service road off Kennedy Drive. However, Kennedy Drive currently closed to traffic on Sundays and in the future may be on Saturdays as well.

Measure: Relationship to major thoroughfares

The San Francisco Master Plan Transportation Element provides a classification of city streets in terms of their desired function. Other than freeways, the most important classification is "Major Arterial". Exhibit 1.7 illustrates the City's classification. As


TB-1 = TRANSBAY TERMINAL SITE 1
TB-2 = TRANSBAY TERMINAL SITE 2
ME = MID-EMBARCADERO
BE = BROADWAY/EMBARCADERO
NOTE: DISTANCES MEASURED ALONG STREETS TO MIDPOINT OF DEVELOPMENT FOOTPRINT
TELEGRAPH HILL (PIONEER PARK)
FERRY BUILDING
RINCON PK
US CUSTOMS
EMBARCADERO PLAZA
FERRY PLAZA EAST
UNION SQUARE
MARKET
BROADWAY
COLUMBUS
MONTGOMERY
SANSOME
BATTERY
FRONT
DAVIS
WALTON PARK
PUBLIC ACCESS & FISHING PIER
1500
1600
1700

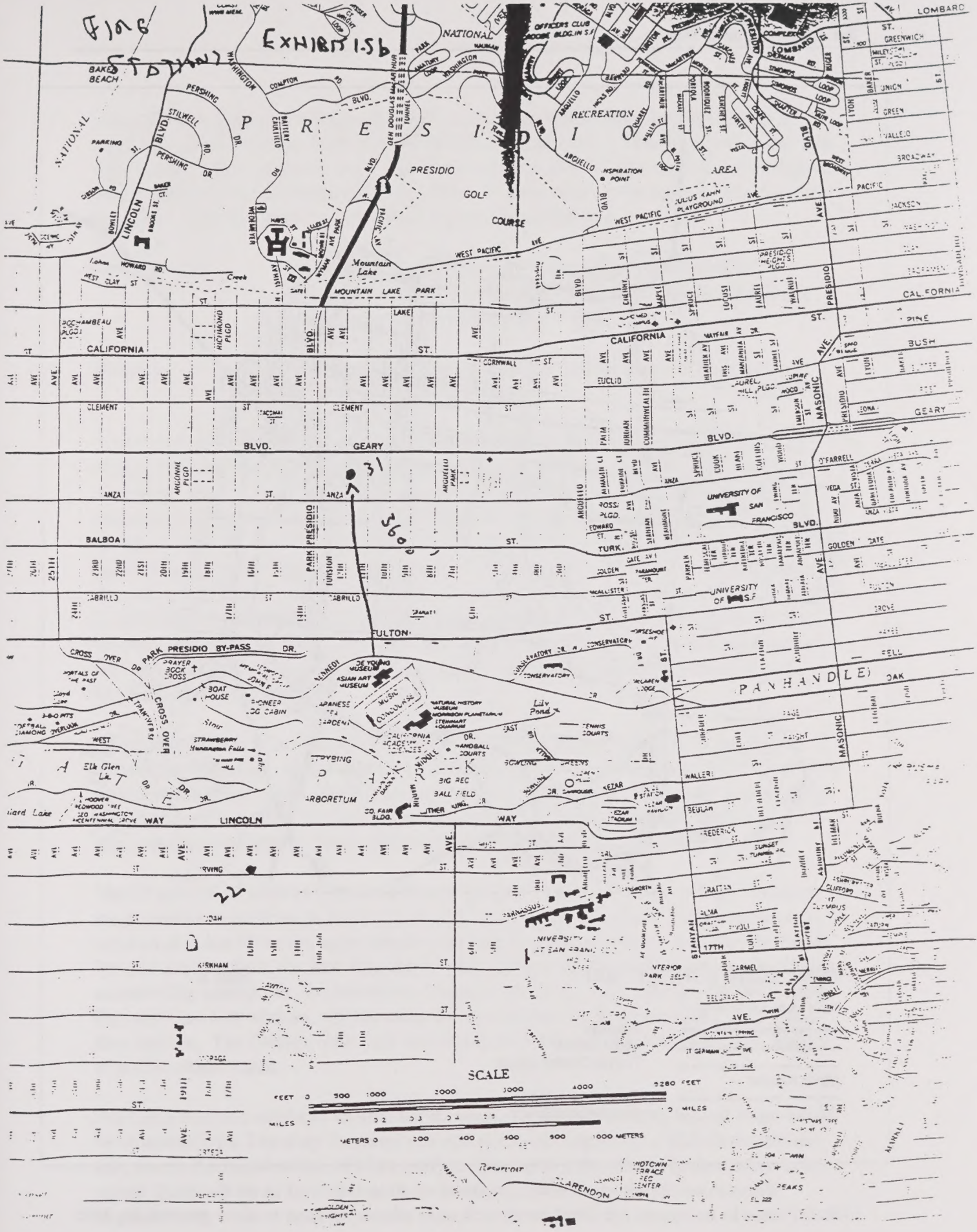


EXHIBIT 15b
PRESIDIO
GOLF COURSE
RECREATION AREA
NATIONAL CEMETERY
BAKER BEACH
PERSHING BLVD.
STILWELL RD.
LINCOLN BLVD.
MOUNTAIN LAKE PARK
Mountain Lake
WEST PACIFIC AVE.
JULIUS KAHN PLAYGROUND
CALIFORNIA ST.
GEARY BLVD.
CLEMENT ST
BALBOA ST
ANZA ST
FULTON ST
LINCOLN WAY
PARK PRESIDIO BY-PASS DR.
CROSS OVER DR
TRANSVERSE DR
JOHN F. KENNEDY DR.
CONSERVATORY DR.
DE YOUNG MUSEUM
ASIAN ART MUSEUM
CALIFORNIA ACADEMY OF SCIENCES
NATURAL HISTORY MUSEUM
MORRISON PLANETARIUM
STEINHART AQUARIUM
CONSERVATORY
JAPANESE TEA GARDEN
Lily Pond
TENNIS COURTS
HANDBALL COURTS
BIG REC BALL FIELD
SOCCER FIELDS
BOAT HOUSE
PIONEER LOG CABIN
STRAWBERRY Hummingbird Falls
Elk Glen Lake
ARBORETUM
CO. FAIR BLDG.
PARK PRESIDIO
PANHANDLE
UNIVERSITY OF SAN FRANCISCO
UNIVERSITY OF S.F.
MASONIC AVE.
PRESIDIO AVE.
LOMBARD ST.
GREENWICH ST.
PACIFIC AVE.
JACKSON ST.
BUSH ST.
PINE ST.
O'FARRELL ST.
GOLDEN GATE AVE.
FULTON ST.
GROVE ST.
HAYES ST.
FELL ST.
OAK ST.
MCALLISTER ST.
TURK ST.
EDDY ST.
ELLIS ST.
O'FARRELL ST.
HAIGHT ST.
WALLER ST.
BEULAH ST.
FREDERICK ST.
CARL ST.
IRVING ST.
JUDAH ST.
KIRKHAM ST.
LINCOLN WAY
SUNSET TUNNEL
STANYAN ST.
17TH ST.
CARMEL ST.
ALMA ST.
PARNASSUS AVE.
UNIVERSITY OF SAN FRANCISCO
CLARENDON AVE.
SCALE
FEET 0 500 1000 2000 3000 4000 5280 FEET
MILES 0 0.1 0.2 0.3 0.4 0.5 0 MILES
METERS 0 200 400 600 800 1000 METERS

VEHICULAR STREET MAP

Map 6

CMP Network Streets

- Freeway
- Major Arterial
- Transit Conflict Street

Other Streets

- Secondary Arterial
- Recreational Street

I.4.32

Adopted July 1995

seen, streets classified as "Major Arterial" include Broadway and The Embarcadero adjacent to the Broadway/Embarcadero site; The Embarcadero, Drumm, Davis, Clay and Washington Streets adjacent to the Mid-Embarcadero site; and Howard, 1st and Fremont Streets adjacent to the Transbay Terminal site. Fulton Street is the only street classified as "Major Arterial" in the vicinity of the Golden Gate Park site.

Criterion 2.1 **Museum to be at a Location Which Provides Optimal Accessibility for All Visitors, by Transit, Vehicle, Bicycle, or Walking at All Times of Day or Week**

Measure: *Length of time-distance travel for all potential user groups and city residential areas*

Travel time and distance is a function of location of museum visitors' trip origins, as well as their choice of mode. Exhibit 2.1a presents a projection of these factors for a downtown site. This estimate was prepared by comparing the origin and mode split characteristics of existing deYoung Museum visitors, based on surveys provided by the Museum, with the characteristics of visitors to the San Francisco Museum of Modern Art (SFMOMA), as provided by SFMOMA staff. This estimate is based on the assumption that relocation to a downtown site would reduce the private auto share to a level similar to SFMOMA's, due to the cost of parking downtown and the quality of transit service to the area. Bicycle and Group Tour Bus modes are also expected to drop for a downtown site, and public transit is projected to capture the share of patronage abandoning auto, bicycle and tour bus modes.

As seen in Exhibit 2.1a, 41 percent of museum visitors are projected to come from outside the Bay Area. It was assumed that this category consisted mostly of tourists, who would be lodging in downtown or Fisherman's Wharf facilities, and would favor public transit and walk modes. For this group, the location and level of transit service (discussed below) tend to favor the downtown sites over the Golden Gate Park Site.

The 30 percent of visitors who come from Bay Area locations outside of San Francisco are projected to continue to be the heaviest private auto mode users. Based on surveys conducted at the Museum, approximately 44 percent of these visitors are from the South Bay, 35 percent from the East Bay and 21 percent from the North Bay. From a highway accessibility standpoint, the downtown locations would be more attractive to both South Bay and East Bay visitors, and the same can be said for transit accessibility. For North Bay visitors, The Golden Gate Park site would be more accessible to auto users, but not to public transit users.

For San Francisco residents visiting the museum, transit accessibility by and large would be enhanced by a Transbay Terminal site and to a lesser degree by a Mid-Embarcadero site, due to the radial nature of Muni service. Access to a Broadway/Embarcadero site would likely not be as favorable as those locations, since many transit users would require a long walk or need to transfer once downtown (with the exception of some Muni

Exhibit 2.1a
MODE SPLIT OF VISITORS BY RESIDENCE LOCATION - EXISTING DeYOUNG Vs. DOWNTOW
(Non-"Blockbuster" Exhibits)
DeYoung Museum Site Location Restudy

Existing DeYoung (December 1996)

		Location of Visitor Residence		
	Total Visitors	San Francisco (29% of Visitors)	Other Bay Area (30% of Visitors)	Outside Bay Area (41% of Visitors)
Private Auto	58%	53%	75%	50%
Cab	3%	1%	1%	5%
Muni or Bart	20%	20%	11%	26%
Group/Tour Bus	4%	0%	11%	2%
Walked	12%	19%	2%	15%
Motorcycle	1%	2%	0%	2%
Bicycle	2%	6%	1%	0%
	100%	100%	100%	100%

Downtown Site

		Location of Visitor Residence		
	Total Visitors	San Francisco (29% of Visitors)	Other Bay Area (30% of Visitors)	Outside Bay Area (41% of Visitors)
Private Auto	48%	47%	67%	36%
Cab	3%	1%	1%	5%
Muni Metro or BART	10%	8%	12%	10%
Bus*	16%	17%	7%	23%
Group/Tour Bus	3%	0%	7%	2%
Ferry*	1%	0%	4%	0%
Walked	17%	23%	2%	23%
Motorcycle	1%	2%	0%	2%
Bicycle	1%	3%	0%	0%
	100%	100%	100%	100%

*Assumes Mid-Embarcadero or Broadway/Embarcadero site; for Transbay Terminal site, potential ferry customers would use bus under the Transbay Terminal alternative.

and Golden Gate Transit users.

Measure: *Location at a site which provides an appropriate balance of transportation modes*

Exhibit 2.1b summarizes the range of transit services available, based on published schedules and maps of all public transit providers in and to San Francisco. All three downtown sites have reasonable proximity to BART, Muni, ferry and regional bus service, The Transbay Terminal site is clearly superior in its proximity to bus lines, with all East Bay (AC Transit), South Bay (SamTrans) and most North Bay (Golden Gate Transit) lines at its door-step. Mid-Embarcadero has the best access to ferry services, BART and Muni Metro, but is less well served by regional bus services. The Broadway/Embarcadero site is distinctly inferior to the other downtown sites, being a quarter mile or more from all regional transit services, but is still vastly superior to a Golden Gate Park site, which has no regional transit access, and only two Muni lines within one quarter mile.

The Muni "F" line, which will connect downtown (from the foot of Market St.) to Fisherman's Wharf by using historic streetcars running along the Embarcadero, has the potential of becoming a major tourist line and as such could become a popular mode of access to both the Mid-Embarcadero and Broadway/Embarcadero sites.

Measure: *Proximity to transit systems with sufficient capacity to serve projected visitorship, especially BART*

High-capacity transit systems relevant to the comparison of sites include BART, Caltrain and Muni Metro. As shown in Exhibit 2.1b, two of the downtown sites are within one quarter mile of BART service, with one, Mid-Embarcadero, within one-eighth mile. The Broadway/Embarcadero site, at 0.72 miles from BART, is not within walking distance by most transit service standards. The Transbay Terminal site is immediately adjacent to a potential Caltrain downtown station, should that system be extended, and the Mid-Embarcadero site would be within approximately one-third mile from Caltrain. The Golden Gate Park site cannot be said to be served by BART. Regarding Muni Metro, for the downtown sites, Muni Metro stations are at the same location as BART stations; the Golden Gate Park site is approximately one-half mile from a Muni Metro (N line) stop.

Measure: *Distance from stations or stops of transit system*

Muni bus lines described in Exhibit 2.1b as "Immediately Adjacent" traverse streets bounding the respective site, and it is assumed that buses either stop alongside the site or that Muni would establish a stop at the site if warranted. In this respect, the Transbay Terminal site is superior to the other two downtown sites, since 11 lines are "immediately adjacent" and, for the Transbay Terminal site Option 2, at least, all regional lines which currently stop at the Transbay Terminal will also have immediately adjacent stops.

Exhibit 2.1b
TRANSIT SERVICE CHARACTERISTICS OF ALTERNATE SITES
DeYoung Museum Site Location Restudy

Type of Transit Service	POTENTIAL SITE			
	Golden Gate Park	Mid-Embarcatero	Broadway/Embarcadero	Transbay Terminal
REGIONAL SERVICE				
Distance to Nearest BART Station	3.5 mi.	0.13 mi.	0.72 mi.	0.21 mi.
Distance to East Bay Bus Terminal	4.8 mi.	0.34 mi.	0.81 mi.	0.10 mi.
Distance to North Bay Ferry Terminal	5.0 mi.	0.13 mi.	0.38 mi.	0.55 mi.
Distance to East Bay Ferry Terminal	5.0 mi.	0.15 mi.	0.25 mi.	0.68 mi.
GG Transit Lines Within 1/4 mi.	0	4	0	30
SamTrans Lines Within 1/4 mi.	0	0	0	13
MUNI SERVICE				
Distance to Muni Metro Station/Stop	0.55 mi.	0.13 mi.	0.72	0.21 mi.
No. of Immediately Adjacent Bus Line	1	3	2	11
Additional Bus Lines Within 1/4 mi.	2	23	4	20

Measure: *Proximity to parking garages with existing remaining vehicular capacity at times of peak museum attendance*

Exhibit 2.1c lists the number of parking spaces within a quarter-mile walking distance from each site which are potentially available for parking by museum visitors. Except for the Golden Gate site, only off-street spaces are included because virtually all on-street spaces in the vicinity of downtown sites are short-term (one hour or less) and would not be used by most museum visitors. The data for Golden Gate Park and mid-Embarcadero sites were extracted from the 1995 New DeYoung Museum Site Selection Study; for the other sites, data were compiled from several recent and ongoing studies for the waterfront, Rincon Hill and Transbay Terminal areas, supplemented by weekday and Saturday parking accumulation observations by Wilbur Smith Associates for this study.

As seen in Exhibit 2.1c, the mid-Embarcadero and Transbay Terminal sites are relatively similar in weekday parking space availability, with the Broadway/Embarcadero site providing fewer opportunities for parking than even the existing museum site, largely due to the relative lack of supply in the area. On Saturdays, the number of spaces available for parking increases drastically in the Mid-Embarcadero and Transbay Terminal areas, to approximately 2,400 and 5,000 spaces respectively. It should be noted that many of these spaces (particularly south of Market Street) are in facilities which are actually closed on weekends but are assumed to be available should museum demand warrant. For the Broadway/Embarcadero site, the estimated number of spaces available rises to over 800 on weekends, considerably more than at the Golden Gate Park site, but less than the two other downtown sites.

Measure: *Distance from, or adjacency to, major vehicular, bicycle and pedestrian thoroughfares*

The sites' proximity to major vehicular thoroughfares is discussed above under Criterion 1.7. Proximity to pedestrian and bicycle thoroughfares was also determined with reference to the City's Master Plan Transportation Element. Exhibits 2.1d and 2.1e reproduce the designated Neighborhood Pedestrian Streets and Bicycle Routes, respectively.

Pedestrians

The Embarcadero, which runs adjacent to the two north of Market sites, is designated as a "Neighborhood Pedestrian Street", as are Mission, First and Fremont Streets, all of which run adjacent to the Transbay Terminal site. It should be pointed out that, City designations notwithstanding, all downtown sites have adequate sidewalk space and protection of pedestrians from traffic via traffic signals or stop signs. Currently, the pedestrian access to the Mid-Embarcadero and Broadway/Embarcadero sites are a more pleasant experience than to the Transbay Terminal site, but future development in the area may change such a perception. The Golden Gate Park site, though not served by a designated pedestrian street, has pedestrian access which is safe and a pleasant experience

Exhibit 2.1c
POTENITIAL OFF STREET PARKING AVAILABILITY WITHIN ONE-QUARTER- MILE OF SITE
DeYoung Museum Site Location Restudy

		WEEKDAY		SATURDAY	
	TOTAL SPACES	PEAK ACCUMULATION	SPACES VACANT	PEAK ACCUMULATION	SPACES VACANT
Golden Gate Park Site	828	552	276	621	207
Mid-Embarcadero Site	3389	2763	626	1001	2388
Transbay Terminal Site 1	5420	4841	579	509	4911
Transbay Terminal Site 2	5797	5198	599	475	5322
Broadway/Embarcadero	972	827	145	170	802

Notes: Excludes private facilities not open to the public
Includes facilities which currently are closed on Saturdays

EXHIBIT 2.1d

NEIGHBORHOOD PEDESTRIAN STREETS

Map 12

Neighborhood Commercial Street

Neighborhood Network Connection Street

BICYCLE ROUTE MAP

Map 13

Citywide Bicycle Route

Bicycle Path and/or Special Treatment

NOTE: This map was developed in cooperation with the Department of Parking and Traffic's San Francisco Bicycle Plan, which will include additional information on specific segment treatments and route designation numbers.

during daylight hours, but not so during hours of darkness.

Bicycles

As can be seen in Exhibit 2.1e, designated bicycle routes provide direct access to the Broadway/Embarcadero site along both Broadway and The Embarcadero; and to the Mid-Embarcadero site along The Embarcadero (the Battery Street Bicycle Route is also one block away). The Transbay Terminal site does not have immediate accessibility from a designated Bicycle Route, but three routes (Market, Howard and Second) are within one block from the site. For the Golden Gate Park site, only Kennedy Drive in the vicinity of the site is formally designated a bicycle route; however, the whole park by its very nature can be considered to be conducive to bicycle travel.

Measure: *Dependence upon arteries with adequate vehicular capacity not lessened by points of congestion, with immediate access to at least two major streets*

Because conditions are considerably different, we have subdivided this category into two conditions, Weekday and Weekend.

Weekday

Since the museum opens after the morning peak, the critical time is the evening peak hour. Examination of traffic levels of service from various reports indicates only a few intersections at levels of service worse than 'D'. Observations, however, indicate very typical congestion points that affect all the downtown sites in the evening rush hour:

1. The First Street/Battery Street corridor is backed-up from the Bay Bridge about 50% of the time. This directly affects virtually all traffic that would need to access the Transbay site.
2. To a lesser extent, traffic is also backed up on the Embarcadero going both northbound and southbound. This affects traffic going to the Bay Bridge from the Broadway/Waterfront and Golden Gateway sites.
3. Traffic is backed up on Broadway virtually every evening from the Broadway tunnel back to Sansome Street. This affects traffic from the Broadway site going west and north.

The Golden Gate Park site is less affected during the week than the downtown sites. The only intersection cited in the recent Park EIR as having an unsatisfactory level of service was Fulton and Stanyan (at 'E'). However, traffic going both north and south from the Park will encounter slow conditions on both 19th Ave. and Park Presidio.

Weekend

The downtown sites do much better on the weekend when most museum traffic occurs. The San Francisco Waterfront Plan EIR shows that the Broadway/Embarcadero intersection is slightly worse on weekends than weekdays but that is the only intersection where this occurs.

The Golden Gate Park EIR shows that Sunday traffic is slightly better than weekdays at area intersections. However, JFK Drive is closed on Sundays and may be on Saturdays as well, so obviously vehicular access to the current museum is impaired.

Measure: *Number of points of public access, including pedestrian access*

[Site design issue which cannot be evaluated by WSA at this time]

Criterion 2.3 **Assure the Museum is Located Within Walking Distance of Transit Stop or Station Which, with Parking for Private Vehicles, Can Deliver a Substantially Increased Number of Museum Visitors**

Measure: *See Criterion 2.1, above.*

This topic is discussed under 2.1, above in detail. From a capacity standpoint, transit providers typically have significant excess capacity at off-peak times. During transit peak hours, it is likely that visitors to downtown sites will be traveling in reverse-commute directions, and sufficient capacity will be available for a substantial number of new visitors.

Criterion 2.4 **Assure that Museum is Located Within Walking Distance of Parking Spaces and/or Garages Which, with Public Transit, Can Accommodate the Vehicles of a Substantially Increased Number of Museum Visitors**

Measure: *On-site capability of off-street parking for 500-900 cars either in separate structure, or part of museum building, or in nearby existing parking areas*

On-site capability for off-street parking is a site design issue and cannot be evaluated by WSA at this time. As presented above, in Exhibit 2.1c, no site has 900 vacant near-by spaces on a weekday (but it is doubtful that such capacity would ever be required). All downtown sites could accommodate approximately 500 additional vehicles on a weekday and over 900 on a weekend, except for the Broadway/Embarcadero site. The Golden Gate Park site could not accommodate even 500 spaces on a weekday or weekend within

reasonable walking distance.

Criterion 2.5 **Assure That the Functional and Operational Needs of the Museum Are Met for Access, in Terms of Transfer and Delivery of Works of Art, Supplies, and Other Goods and Equipment**

Measure: *Existence of separate rights-of-way and needed turnaround areas for truck loading and other internal museum needs*

As discussed above, plans for the Broadway/Embarcadero, Mid-Embarcadero and Golden Gate Park sites indicate exclusive or semi-exclusive rights-of-way for delivery and unloading activities. Sufficient detail has not been developed to evaluate the adequacy of these facilities at this time. Access to the Transbay Terminal site for delivery and unloading also has not been developed in sufficient detail for evaluation by WSA at this time.

Criterion 7.2 **Ability of Site to Optimize Revenues by Attracting Visitors for Viewing Art, Patronizing the Bookstore and Cafe, and Event Rental, Within the Capabilities of Likely Visitors to Afford Admission and Purchases (by Assuring Ease of Access, Public Awareness and Visibility, and Projecting an Inviting Museum "Face")**

Measure: *Proximity of hotels and other cultural/educational facilities*

Exhibit 7.2 lists the number of hotel rooms within a half-mile and one-mile radius of each site. As can be seen, the downtown sites have from 1,900 to 3,400 hotel rooms within a one-half mile radius, and 11,000 to 20,500 rooms within a one-mile radius, with the Broadway/Embarcadero site at the low end of this spectrum and Transbay Terminal site at the high end. The Golden Gate Park site would have no hotel rooms with a one-half mile radius, and only 119 within a one-mile radius.

Criterion 8.1 **Increase Compatibility with the Surrounding Area**

Measure *Points of conflict with traffic movements*

The potential for conflicts with other traffic movements will primarily arise during periods of peak arrival and departure of persons accessing the site by private automobile. Since parking locations have not been established, this measure cannot be evaluated at this time.

Exhibit 7.2
PROXIMITY OF HOTEL ROOMS
DeYoung Museum Site Location Restudy

	Hotel Rooms Within	
Site	1/2 Mile	1 Mile
Golden Gate Park	0	119
Mid-Embracadero	2105	15199
Broadway/Embarcadero	1887	11017
Transbay	3427	20587

Criterion 8.4 Increase in Revenues for City

Measure: *Increase in Muni usage*

The downtown sites are expected to increase the share of persons using public transit, which will result in a slight increase in revenues to the City. Based on estimates of mode split developed in Exhibit 2.1a, a downtown site is projected to generate approximately 38,000 more transit riders (76,000 more one-way trips) annually than a Golden Gate Park site. Assuming a full Muni fare is paid for 50 percent of the trips (the remainder assumed to be pass, senior/youth fare or transfer), up to $38,000 in additional Muni revenue could be generated by a downtown site.

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